Mathematics We Need

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BOOK TWO

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Mathematics We Need

BOOK TWO

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GINN AND COMPANY, TORONTO

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To the Teacher: For lesson plans and discussion of the second year's program see *Teaching* MATHEMATICS WE NEED, *Book Two.*

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Sets of Things

Identifying the number for the set; showing sets

1. How many are there in each set? Write your answers.

a. Green apples 7 b. Baskets ____ c. Red apples ____

2. How many are there in this set? ____

3. Draw baskets to show a set of ten baskets in all.

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Sets and Parts of Sets

Sets of not more than 7 members

1.

3 cows in all. 2 cows are white. 1 cow is red.

One part of a set of 3 is 2. The other part is ___.

You may write about a set of 3 and its parts this way:

3; 2 and 1 3; 1 and ___

2.

___ pails in all.

___ big pails. ___ little pails.

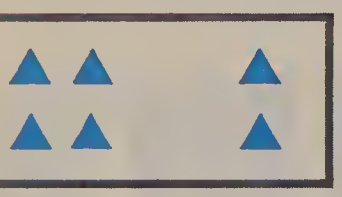
One part of a set of 5 is 3.

The other part is ___.

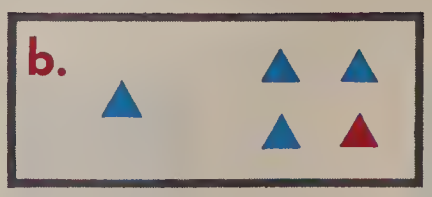
5; 3 and ___ 5; 2 and ___

3. There are two ways to write about these parts. Finish the work.

a.



b.



c.

6; ___ and ___ ___; ___ and ___ ___; ___ and ___

___; ___ and ___ ___; ___ and ___ ___; ___ and ___

Writing about Pairs of Parts of Sets

Sets of not more than 7 members

1. Finish writing about these parts of sets:

a.

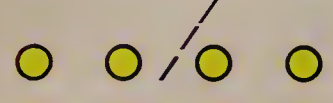
2; 1 and 1 2; ___ and ___

b.

3; 2 and 1 3; ___ and ___

c.

4; 3 and 1 4; ___ and ___

d. 

___; ___ and ___ ___; ___ and ___

e.

5; ___ and ___ ___; ___ and ___

f.

___; ___ and ___ ___; ___ and ___

g.

6; ___ and ___ ___; ___ and ___

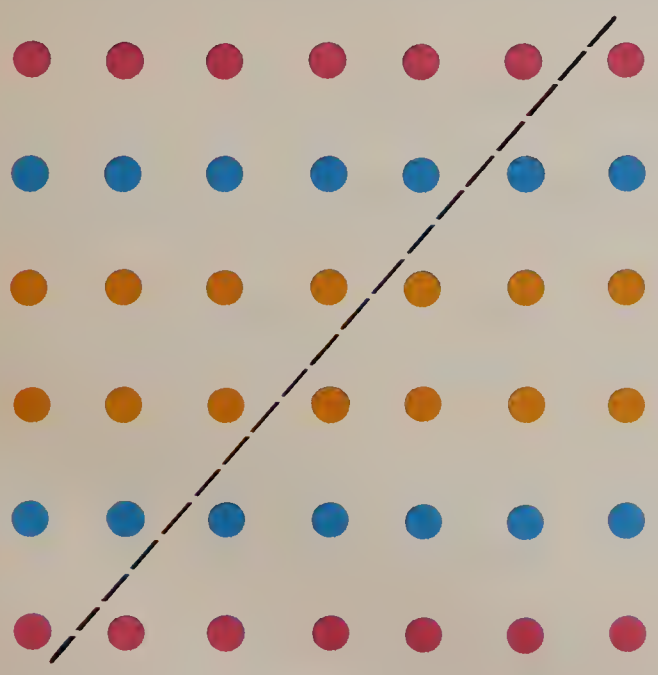
h.

___; ___ and ___ ___; ___ and ___

i.

___; ___ and ___ ___; ___ and ___

2. Finish writing about these parts of sets of 7:

a. 

7; 6 and 1 7; 1 and 6

b. 7; ___ and ___ 7; ___ and ___

c. 7; ___ and ___ 7; ___ and ___

d. 7; ___ and ___ 7; ___ and ___

e. 7; ___ and ___ 7; ___ and ___

f. 7; ___ and ___ 7; ___ and ___

3. a. One part of a set of 7 is 2. The other part is ___.

b. One part of a set of 7 is 4. The other part is ___.

Joining Two Sets and Showing Addition Facts

Relating addition to union of two sets

1.

3 cars in one set. ___ cars in the other set.

How many cars in all? 3 cars and ___ cars are ___ cars.

If you add the numbers 3 and 2, the sum is 5. $3 + 2 = \square$

$3 + 2 = 5$ shows an addition fact, or an A. fact.

2.

4 men in one set

___ in the other set

___ men in all

If you add ___ and ___,

the sum is ___.

The addition fact is

4 + ___ = ___.

3.

5 bags in one set

___ in the other set

___ bags in all

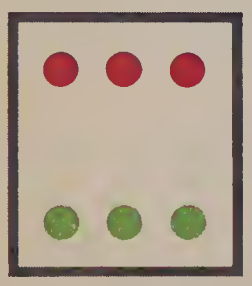
If you add ___ and ___,

the sum is ___.

The A. fact is

5 + ___ = ___.

4.



___ dots in one set. ___ dots in the other set.

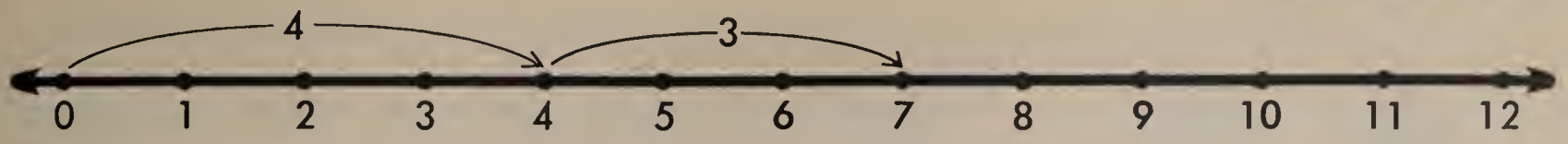
There are ___ dots in all.

Show the A. fact: ___ + ___ = ___

Using a Number-Line Picture with Addition

Another way to help find a sum

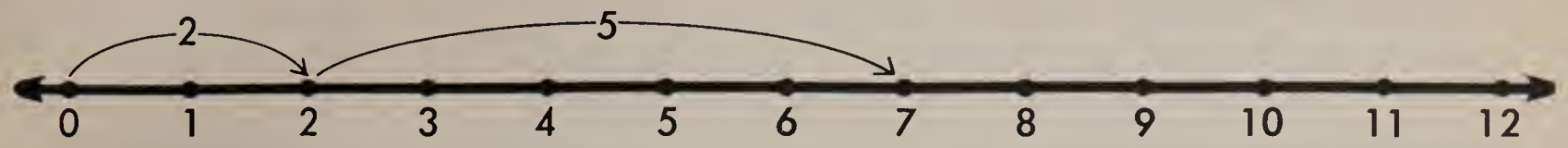
1.



This number-line picture shows that $4 + 3 = \square$.

The sum of four and three is seven.

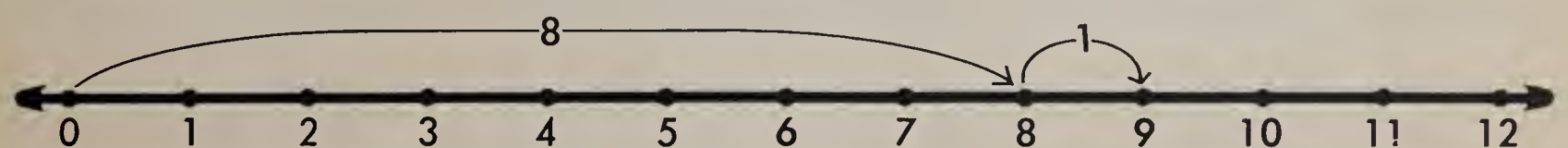
2.



This number-line picture shows that $\square + 5 = 7$.

The sum of _____ and five is seven.

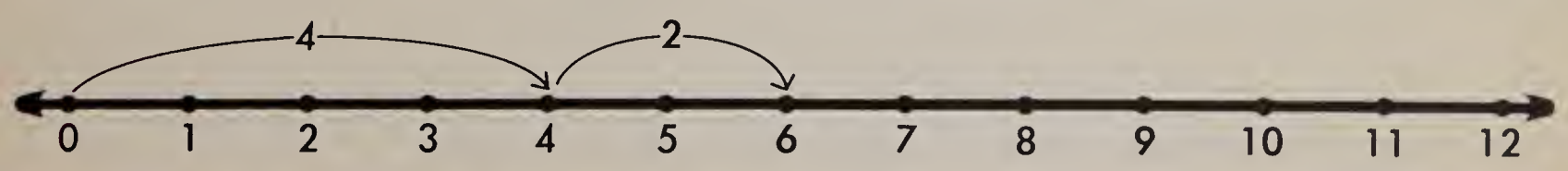
3.



This number-line picture shows that $8 + 1 = \square$.

For the number nine, one name is 9. Another name is 8 + 1.

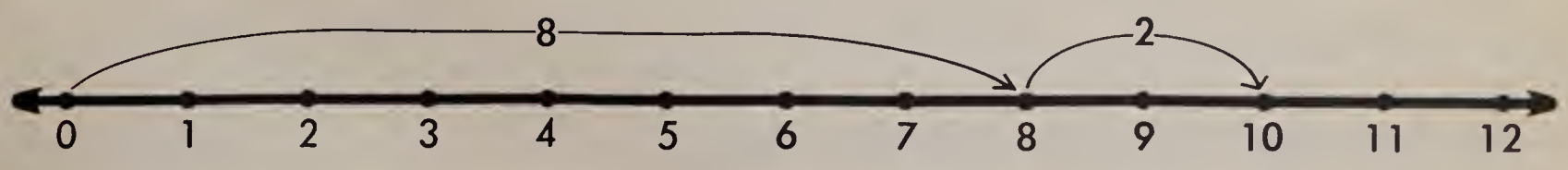
4.



This number-line picture shows that $\square + 2 = 6$.

For the number six, one name is 6. Another name is _____.

5.



This number-line picture shows that $8 + \square = 10$.

For the number ten, one name is 10. Another name is _____.

Pairs of Addition Facts

Using the Commutative Property of Addition

1.

____ boy dolls. ____ girl dolls.

2 dolls and 4 dolls are ____ dolls.

4 dolls and 2 dolls are ____ dolls.

Show the pair of addition facts.

2 + ⬡ = □ 4 + △ = □

2.

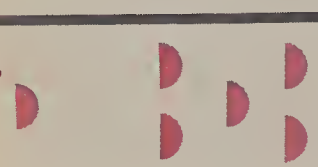
____ little hats. ____ big hat.

Finish to show the pair of A. facts.

5 + 1 = □ 1 + 5 = □

3. For these pictures, show the A. facts in pairs:

a.



△ + ⬡ = □ ⬡ + □ = △

⬠ + △ = □ □ + ⬡ = △

b.

____ + ____ = ____

____ + ____ = ____

c.

4. For each of these pictures, show the one A. fact:

a.

□ + □ = ⬡

b.

□ + □ = ⬡

c.

□ + □ = ⬡

5. Finish to show pairs of addition facts.

a. 4 + 2 = ____

____

b. 2 + 5 = ____

____

c. 6 + 1 = ____

____

One and Two in Addition

Using the Commutative Property of Addition

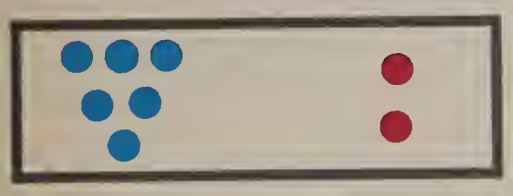
1. Show the pair of A. facts for the dot picture.

○ + △ = □ △ + ○ = □

2. Finish to show an A. fact. Then show the other A. fact of the pair.

a. 5 + 1 = □ **b.** 6 + 1 = □ **c.** 9 + 1 = □

1 + ____ = ____ ____ + ____ = ____ ____ + ____ = ____



3. Show the pair of A. facts for the dot picture.

____ + ____ = ____ ____ + ____ = ____

4. Try these. Finish to show an A. fact. Then show the other A. fact of the pair.

a. 3 + 2 = □ **b.** 5 + 2 = □ **c.** 6 + 2 = □ **d.** 7 + 2 = □

_____ _____ _____ _____

e. 1 + 2 = □ **f.** 4 + 2 = □ **g.** 8 + 2 = □

_____ _____ _____

5. Now try these. Show the sums.

a. 5 + 1 = □	**b.** 7 + 1 = □	**c.** 9 + 1 = □	**d.** 8 + 1 = □
1 + 5 = □	1 + 7 = □	1 + 9 = □	1 + 8 = □
e. 4 + 2 = □	**f.** 6 + 2 = □	**g.** 7 + 2 = □	**h.** 8 + 2 = □
2 + 4 = □	2 + 6 = □	2 + 7 = □	2 + 8 = □

Do You Remember?

Review; problem-solving

1. Add. The sums are even numbers.

a. $2 + 2 = \square$ **b.** $1 + 5 = \square$ **c.** $3 + 3 = \square$ **d.** $2 + 4 = \square$

e. $9 + 1 = \square$ **f.** $4 + 2 = \square$ **g.** $2 + 8 = \square$ **h.** $1 + 3 = \square$

i. $7 + 1 = \square$ **j.** $1 + 9 = \square$ **k.** $3 + 1 = \square$ **l.** $6 + 2 = \square$

m. $1 + 7 = \square$ **n.** $8 + 2 = \square$ **o.** $2 + 6 = \square$ **p.** $5 + 1 = \square$

2. Add. The sums are odd numbers.

a. $6 + 1 =$ ___ **b.** $3 + 4 =$ ___ **c.** $2 + 3 =$ ___ **d.** $5 + 2 =$ ___

e. $2 + 1 =$ ___ **f.** $1 + 6 =$ ___ **g.** $4 + 1 =$ ___ **h.** $3 + 2 =$ ___

i. $1 + 8 =$ ___ **j.** $1 + 4 =$ ___ **k.** $1 + 2 =$ ___ **l.** $2 + 5 =$ ___

m. $7 + 2 =$ ___ **n.** $8 + 1 =$ ___ **o.** $4 + 3 =$ ___ **p.** $2 + 7 =$ ___

Using Addition

Write your work.

1.

Tom saw 2 long red trucks and 3 long green trucks. Find how many long trucks Tom saw in all.

$2 + 3 = \square$ ___ trucks

2.

Jack has 3 little cars and 2 big cars all the same color. Jack has how many cars all the same color?

___ + ___ = ___ ___ cars

Joining Three Sets and Adding the Numbers

Using the Associative Property of Addition

1.

___ birds ___ birds ___ bird

$2 + 3 + 1 = ?$

Think as in **a** or think as in **b**.

a. $2 + 3 + 1 = \underline{5} + 1$

$5 + 1 = ___$

So, $2 + 3 + 1 = 6$.

You added 2 and 3 first.

b. $2 + 3 + 1 = 2 + \underline{4}$

$2 + 4 = ___$

So, $2 + 3 + 1 = 6$.

You added 3 and 1 first.

2.

$4 + 1 + 2 = ?$

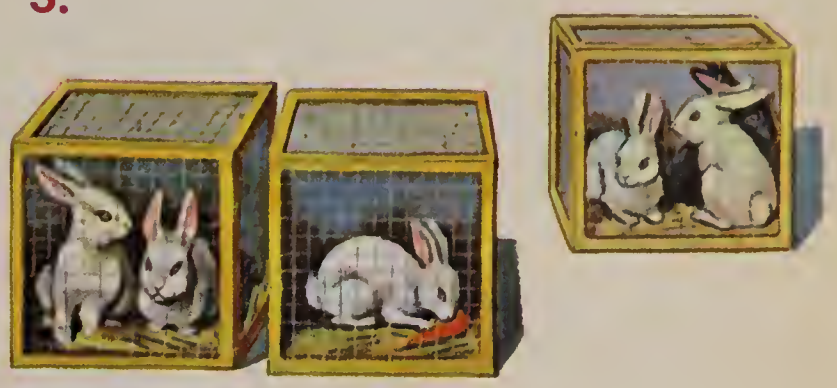
Add 4 and 1 first.

$4 + 1 + 2 = ___ + 2$

$5 + 2 = ___$

So, $4 + 1 + 2 = ___$.

3.



$2 + 1 + 3 = ?$

Add 1 and 3 first.

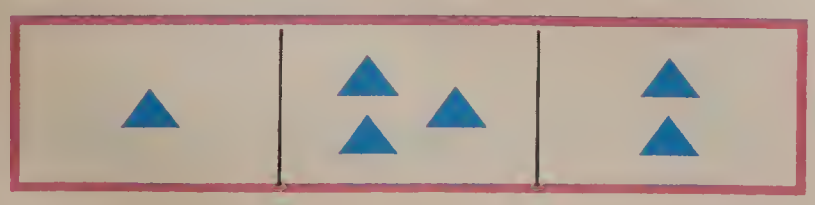
$2 + 1 + 3 = 2 + ___$

$2 + 4 = ___$

So, $2 + 1 + 3 = ___$.

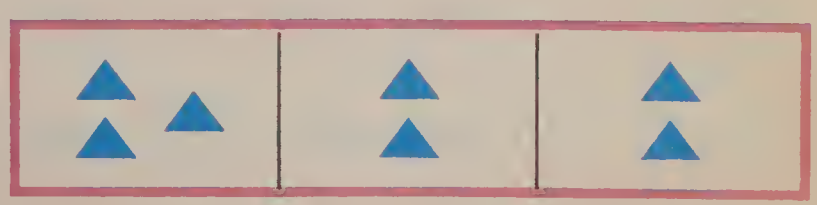
4. Work these:

a.



$\underline{1} + \underline{3} + \underline{2} = ___$

b.



$___ + ___ + ___ = ___$

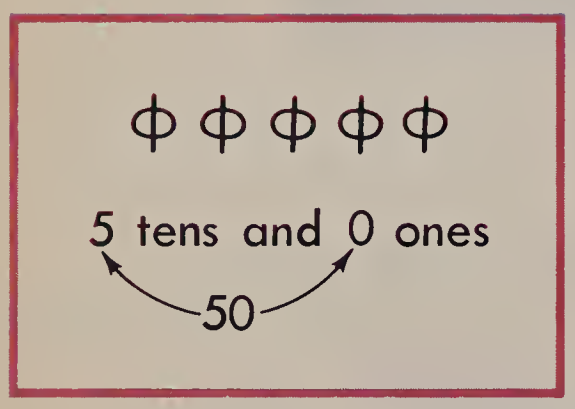
Tens and Ones

Working with base ten and place value

Finish the work below.

Φ | | | | |	17	1 ten and 7 ones
Φ Φ Φ Φ Φ | | | | |	___	___ tens and ___ ones
Φ Φ Φ Φ Φ Φ Φ Φ | | | |	___	___ tens and ___ ones
Φ Φ | | |	26	2 tens and 6 ones
	62	___ tens and ___ ones
	___	4 tens and 3 ones
	___	3 tens and 1 one

More about Tens



This picture shows 5 tens and zero ones. We may write the numeral 50.

In 50, the 5 shows there are five _____; the 0 shows there are zero _____.

Finish the work below. Write 0 to show no other ones.

30	3 tens and 0 ones	60	___ tens and ___ ones
80	___ tens and ___ ones	20	___ tens and ___ ones
40	___ tens and ___ ones	78	___ tens and ___ ones
54	___ tens and ___ ones	90	___ tens and ___ ones

The Set of Whole Numbers Through 100

Number names; order; counting by 2's and by 10's

1. Write the number names that are missing.

0	1	2	3	4	5	6			9
10	11	12	13			16	17	18	
20		22		24	25			28	29
	31		33			36	37		
40			43		45	46		48	
50	51	52		54			57		59
		62			65	66		68	69
	71		73	74			77		
80		82	83		85		87	88	
	91	92			95			98	
100									

2. Write the missing numerals.

a. 14 15

b. 52 ____

c. 74 ____

d. 49 ____

e. 37 ____

f. 17 18

g. ____ 85

h. ____ 34

i. ____ 100

j. ____ 68

3. Greater?

a. 29 or 56

b. 43 or 34

c. 77 or 11

Less?

d. 0 or 100

e. 75 or 25

f. 62 or 26

4. Less?

a. 83 or 62

b. 95 or 38

c. 66 or 99

Greater?

d. 13 or 31

e. 50 or 5

f. 34 or 43

5. Count by 10's to show the missing number names.

10 20 30 ____ ____ ____ ____ ____ ____ 100

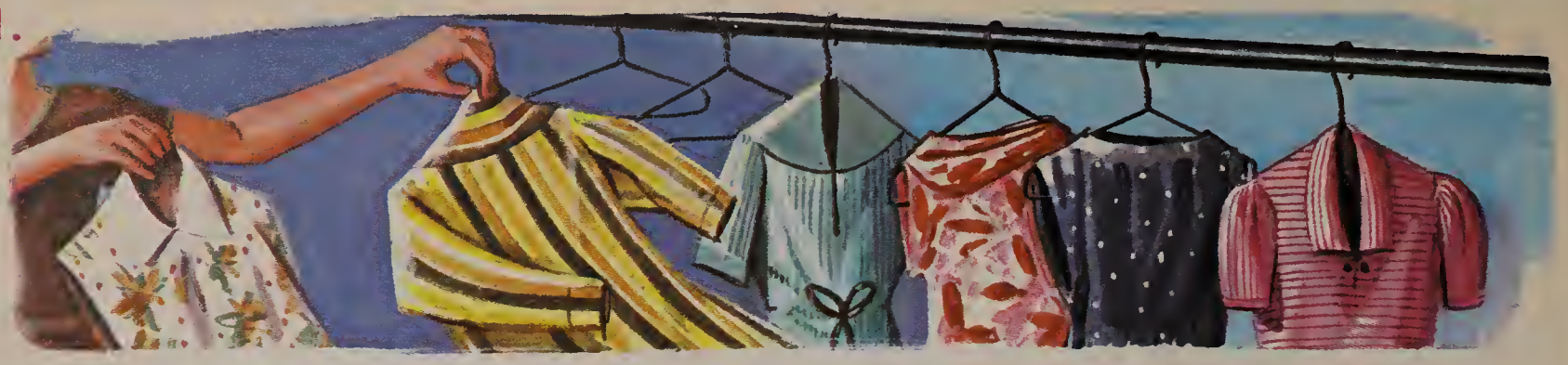
6. Count by 2's to show the missing numerals.

2 4 6 ____ ____ ____ ____ ____ ____ ____

Removing Sets and Showing Subtraction Facts

Using subtraction to find number for subset remaining

1.



6 dresses in all. ___ are taken away. How many are left?

6 dresses take away ___ dresses is ___ dresses.

If from the number 6 you subtract 2, the answer is 4. $6 - 2 = \square$

$6 - 2 = 4$ shows a subtraction fact, or a S. fact.

2.

7 short coats in all

___ taken away

___ short coats left

If from ___ you subtract ___, the answer is ___.

The subtraction fact is

$7 - ___ = ___$.

3.

5 hats in all

___ taken away

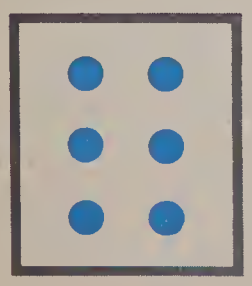
___ hats left

If from ___ you subtract ___, the answer is ___.

The S. fact is

$5 - ___ = ___$.

4.



___ dots in all. Cover 3 dots.

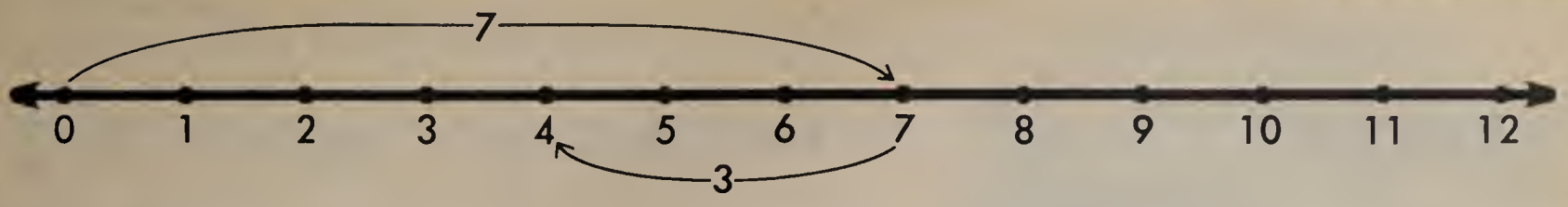
You can see ___ dots then.

Show the S. fact: ___ − ___ = ___

Using a Number-Line Picture with Subtraction

Another way to help find an unknown addend

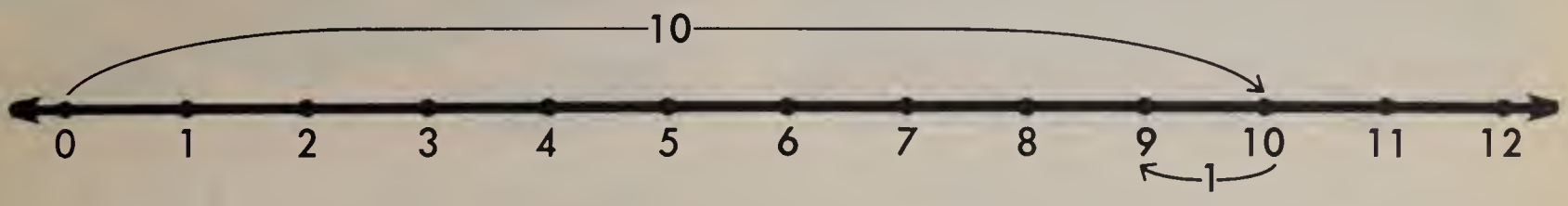
1.



This number-line picture shows that $7 - 3 = \square$.

For the number four, one name is 4. Another name is 7 − 3.

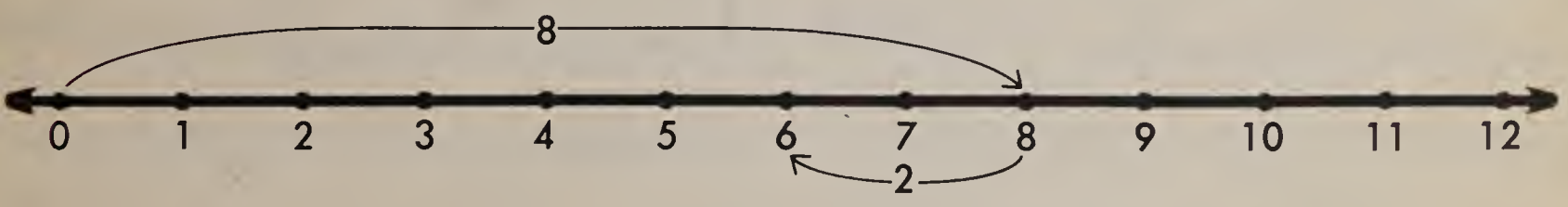
2.



This number-line picture shows that $10 - 1 = \square$.

For the number nine, one name is 9. Another name is _____.

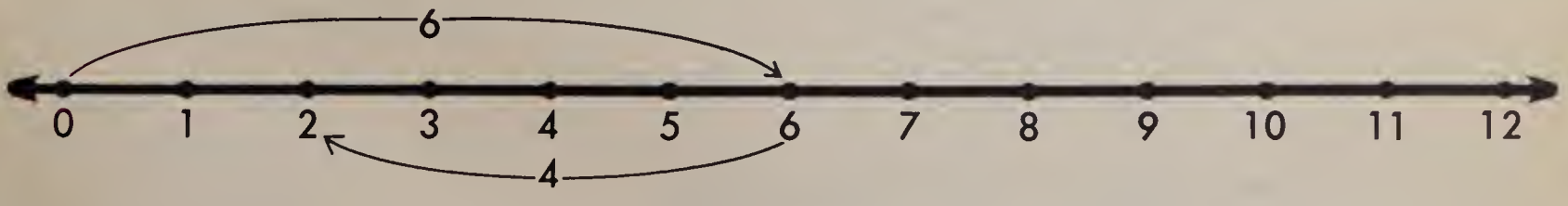
3.



This number-line picture shows that $8 - \square = 6$.

For the number six, one name is 6. Another name is _____.

4.



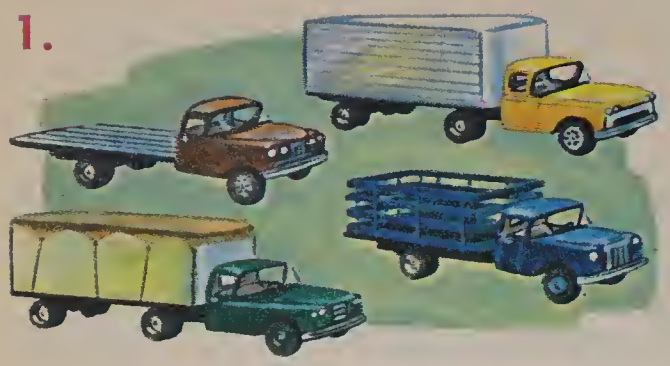
This number-line picture shows that $\square - 4 = 2$.

For the number two, one name is 2. Another name is _____.

Pairs of Subtraction Facts

Related subtraction facts

1.



____ trucks in all

What is the pair of subtraction facts?

Cover 1. ____ are left. 4 − 1 = □

Cover 3. ____ is left. 4 − 3 = ⬡

2. Finish to show the pair of S. facts for each picture.

a.

Cover 2. 6 − 2 = △

Cover 4. 6 − 4 = ⬡

b.

Cover 4. 5 − □ = △

Cover 1. 5 − △ = □

3. For these pictures, show the S. facts in pairs:

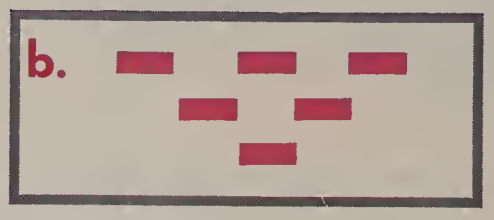
a.

____ in all

Cover 2. □ − ⬡ = △

Cover 5. □ − △ = ⬡

b.



____ in all

Cover 4. ____ − ____ = ____

Cover 2. ____ − ____ = ____

4. For each of these pictures, show the one S. fact:

a.

____ in all

Cover 2. ____ − □ = □

b.

____ in all

Cover 3. ____ − □ = □

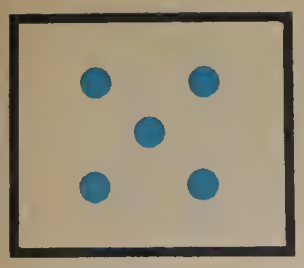
5. Finish to show pairs of subtraction facts.

a. 5 − 3 = ____

b. 7 − 2 = ____

c. 7 − 4 = ____

One and Two in Subtraction



1. Show the pair of S. facts for the dot picture.

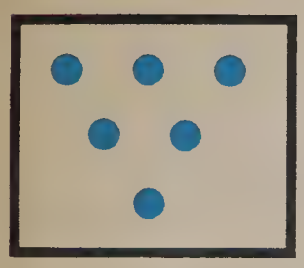
Cover 1. $5 - \triangle = \square$ Cover 4. $5 - \square = \triangle$

2. Finish to show a S. fact. Then show the other S. fact of the pair.

a. $6 - 1 = \square$ $6 - \quad = \underline{\quad}$

b. $8 - 1 = \square$ $8 - \quad = \underline{\quad}$

c. $10 - 1 = \square$ $10 - \quad = \underline{\quad}$



3. Show the pair of S. facts for the dot picture.

Cover 2. $6 - 2 = \underline{\quad}$ Cover 4. $6 - \quad = \underline{\quad}$

4. Try these. Finish to show a S. fact. Then show the other S. fact of the pair.

a. $5 - 2 = \square$ $\underline{\quad}$

b. $3 - 2 = \square$ $\underline{\quad}$

c. $6 - 2 = \square$ $\underline{\quad}$

d. $8 - 2 = \square$ $\underline{\quad}$

e. $7 - 2 = \square$ $\underline{\quad}$

f. $10 - 2 = \square$ $\underline{\quad}$

g. $9 - 2 = \square$ $\underline{\quad}$

5. Now try these. Write the answers.

a. $10 - 1 = \square$ $10 - 9 = \triangle$

b. $8 - 1 = \square$ $8 - 7 = \triangle$

c. $9 - 1 = \square$ $9 - 8 = \triangle$

d. $7 - 1 = \square$ $7 - 6 = \triangle$

e. $7 - 2 = \square$ $7 - 5 = \triangle$

f. $9 - 2 = \square$ $9 - 7 = \triangle$

g. $8 - 2 = \square$ $8 - 6 = \triangle$

h. $10 - 2 = \square$ $10 - 8 = \triangle$

Do You Remember?

1. Subtract. The answers are odd numbers.

a. 4 − 1 = ☐ **b.** 5 − 2 = ☐ **c.** 3 − 2 = ☐ **d.** 4 − 3 = ☐

e. 9 − 2 = ☐ **f.** 7 − 4 = ☐ **g.** 5 − 4 = ☐ **h.** 7 − 2 = ☐

i. 6 − 1 = ☐ **j.** 8 − 7 = ☐ **k.** 6 − 3 = ☐ **l.** 8 − 1 = ☐

m. 7 − 6 = ☐ **n.** 9 − 8 = ☐ **o.** 6 − 5 = ☐ **p.** 10 − 9 = ☐

2. Subtract. The answers are even numbers.

a. 6 − 2 = ___ **b.** 7 − 3 = ___ **c.** 5 − 1 = ___ **d.** 6 − 4 = ___

e. 7 − 5 = ___ **f.** 5 − 3 = ___ **g.** 7 − 1 = ___ **h.** 3 − 1 = ___

i. 9 − 7 = ___ **j.** 8 − 6 = ___ **k.** 10 − 2 = ___ **l.** 10 − 8 = ___

m. 9 − 1 = ___ **n.** 8 − 2 = ___ **o.** 4 − 2 = ___ **p.** 9 − 7 = ___

Using Subtraction

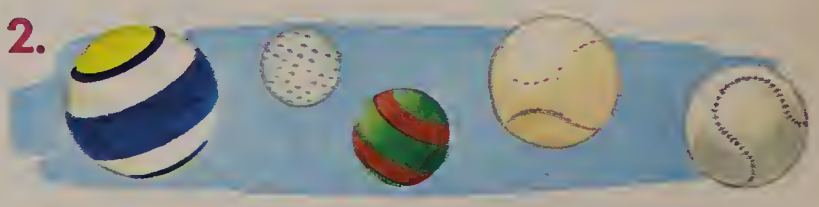
Write your work.

1.

Sam had 5 marbles in his hand. He lost 2 of them. Find how many marbles Sam had in his hand then.

5 − 2 = ☐ ___ marbles

2.

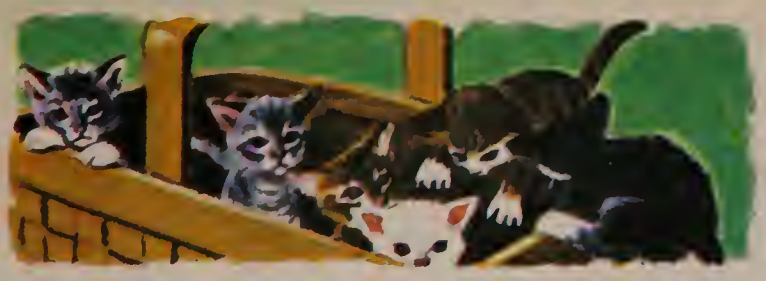


Sue had 5 balls. She lost 3 of them. How many balls did Sue have then?

___ − ___ = ___ ___ balls

Doing and Undoing

1.



4 + ___ = ___

6 − ___ = ___

So 4 + 2 − 2 = ___.

First add, then subtract. Finish the work.

2. 5 + 2 = ___

7 − 2 = ___

So, 5 + 2 − 2 = ___.

3. 1 + 5 = ___

6 − 5 = ___

So, 1 + 5 − 5 = ___.

4.

7 − ___ = ___

4 + ___ = ___

So, 7 − 3 + 3 = ___.

5. First subtract, then add. Finish the work.

a. 6 − 4 = ___

2 + 4 = ___

So, 6 − 4 + 4 = ___.

b. 5 − 2 = ___

3 + 2 = ___

So, 5 − 2 + 2 = ___.

6. Write the answers.

a. 6 + 1 − 1 = ___ **b.** 3 + 4 − 4 = ___ **c.** 2 + 3 − 3 = ___

d. 7 − 1 + 1 = ___ **e.** 6 − 5 + 5 = ___ **f.** 7 − 4 + 4 = ___

Zero in Addition and Subtraction

Identity Element; equalities and inequalities

1. Finish each of these:

a. $4 + 3 =$ ___	**b.** $3 + 4 =$ ___	**c.** $4 - 3 =$ ___	**d.** $4 - 1 =$ ___
$4 + 2 =$ ___	$2 + 4 =$ ___	$4 - 2 =$ ___	$4 - 2 =$ ___
$4 + 1 =$ ___	$1 + 4 =$ ___	$4 - 1 =$ ___	$4 - 3 =$ ___
So, $4 + 0 =$ ___.	So, $0 + 4 =$ ___.	So, $4 - 0 =$ ___.	So, $4 - 4 =$ ___.

2. Now try these:

a. $5 + 2 =$ ___	**b.** $2 + 5 =$ ___	**c.** $7 - 2 =$ ___	**d.** $7 - 5 =$ ___
$5 + 1 =$ ___	$1 + 5 =$ ___	$7 - 1 =$ ___	$7 - 6 =$ ___
So, $5 + 0 =$ ___.	So, $0 + 5 =$ ___.	So, $7 - 0 =$ ___.	So, $7 - 7 =$ ___.

3. Write the answers.

a. $6 + 0 =$ ___	**e.** $3 + 0 =$ ___	**i.** $7 + 0 =$ ___	**m.** $2 + 0 =$ ___
b. $0 + 6 =$ ___	**f.** $0 + 3 =$ ___	**j.** $0 + 7 =$ ___	**n.** $0 + 2 =$ ___
c. $5 - 0 =$ ___	**g.** $3 - 0 =$ ___	**k.** $6 - 0 =$ ___	**o.** $2 - 0 =$ ___
d. $5 - 5 =$ ___	**h.** $3 - 3 =$ ___	**l.** $6 - 6 =$ ___	**p.** $2 - 2 =$ ___

Is Equal To—Is Not Equal To

The sum of 4 and 2 is equal to 6. $4 + 2 = 6$

The sum of 4 and 3 is not equal to 5. $4 + 3 \neq 5$

Write $=$ or $\neq$ in each ring to finish these:

a. $6 + 1$ ◯ 7	**b.** $3 + 3$ ◯ 5	**c.** $2 + 5$ ◯ 8
d. $7 - 3$ ◯ 5	**e.** $6 - 4$ ◯ 2	**f.** $7 - 4$ ◯ 6

Addition Facts and Subtraction Facts

Related A. facts; related S. facts; inverses

1.
a. 5 + 0 = ___ · · · · · · · 5 − 0 = ___
b. 4 + 1 = ___ · · · · · · · 5 − 1 = ___
c. 3 + 2 = ___ · · · · · · · 5 − 2 = ___
d. 2 + 3 = ___ · · · · · · · 5 − 3 = ___
e. 1 + 4 = ___ · · · · · · · 5 − 4 = ___
f. 0 + 5 = ___ · · · · · · · 5 − 5 = ___

2.
a. 6 + 0 = ___ · · · · · · · 6 − 0 = ___
b. 5 + 1 = ___ · · · · · · · 6 − 1 = ___
c. 4 + 2 = ___ · · · · · · · 6 − 2 = ___
d. 3 + 3 = ___ · · · · · · · 6 − 3 = ___
e. 2 + 4 = ___ · · · · · · · 6 − 4 = ___
f. 1 + 5 = ___ · · · · · · · 6 − 5 = ___
g. 0 + 6 = ___ · · · · · · · 6 − 6 = ___

3.
a. 7 + 0 = ___ · · · · · · · 7 − 0 = ___
b. 6 + 1 = ___ · · · · · · · 7 − 1 = ___
c. 5 + 2 = ___ · · · · · · · 7 − 2 = ___
d. 4 + 3 = ___ · · · · · · · 7 − 3 = ___
e. 3 + 4 = ___ · · · · · · · 7 − 4 = ___
f. 2 + 5 = ___ · · · · · · · 7 − 5 = ___
g. 1 + 6 = ___ · · · · · · · 7 − 6 = ___
h. 0 + 7 = ___ · · · · · · · 7 − 7 = ___

Showing Addition Facts in Two Ways

Horizontal and vertical forms for showing addition

1.

Find how many flowers in all.

$$2 + 1 = 3$$

There are ___ flowers in all.

You may show the A. fact this way too:

$$\begin{array}{r} 2 \\ 1 \\ \hline 3 \end{array}$$

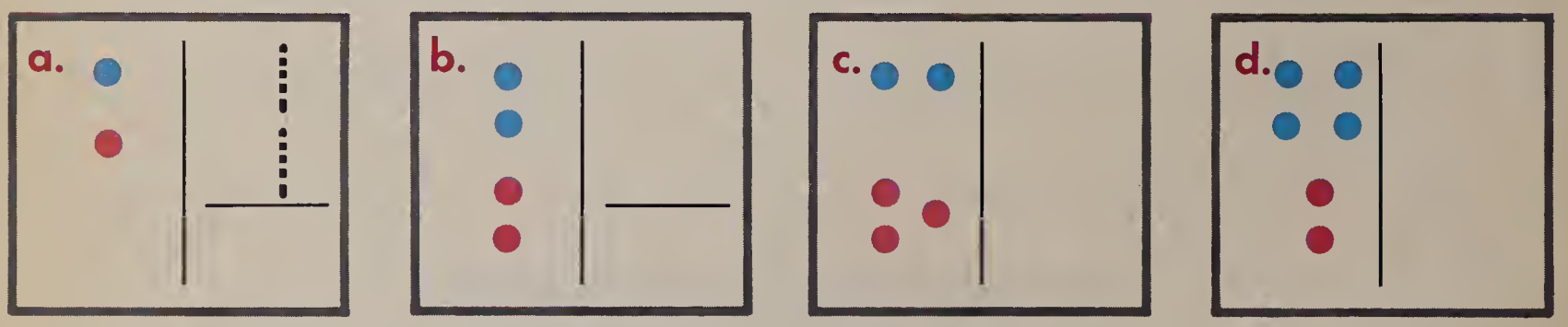
Read down for the up-and-down way.

2. Finish the addition work.
Read down.

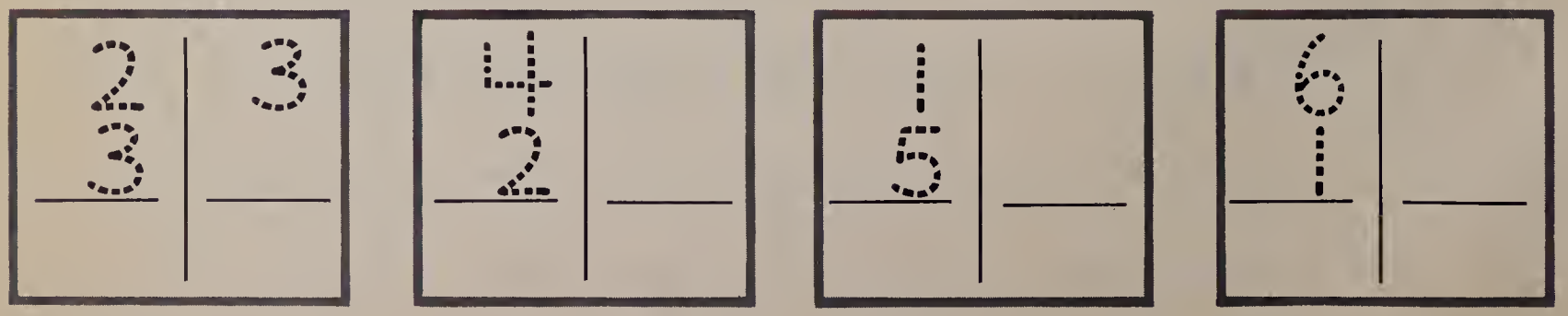
$$\begin{array}{r} 3 \\ 2 \\ \hline \end{array}$$

There are ___ flowers in all.

3. Show each A. fact the up-and-down way.



4. Finish showing the pairs of A. facts.



Showing Subtraction Facts in Two Ways

Horizontal and vertical forms for showing subtraction

1.

___ penguins in all

Cover 1 penguin. Find how many are left.

$$3 - 1 = 2$$

There are ___ penguins left.

You may show the S. fact this way too:

$$\begin{array}{r} 3 \\ -\ 1 \\ \hline 2 \end{array}$$

Read down for the up-and-down way.

2.

___ penguins in all

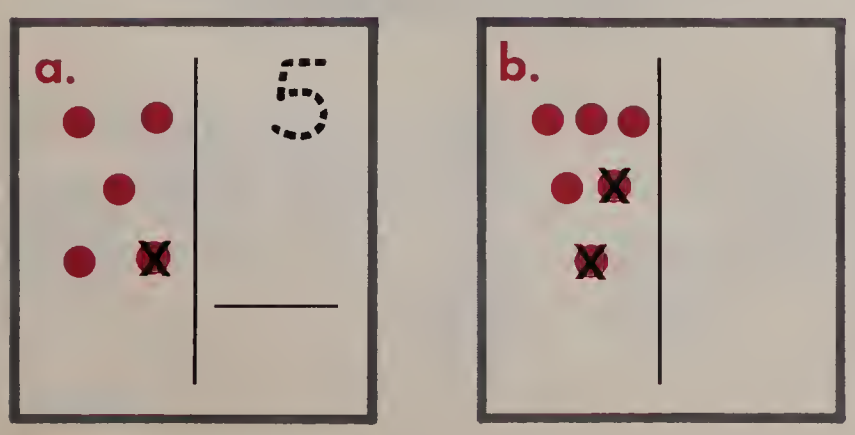
Cover 2 penguins. Find how many are left.

Show the S. fact the up-and-down way.

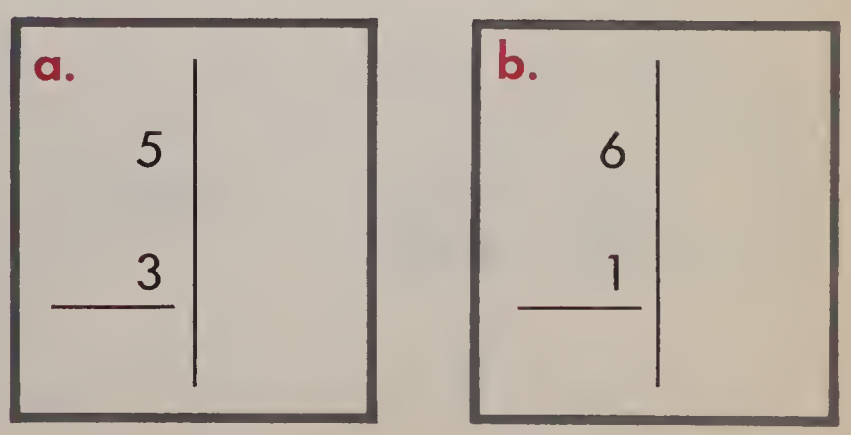
$$\begin{array}{r} 5 \\ -\ 2 \\ \hline 3 \end{array}$$

There are ___ penguins left.

3. Show a S. fact in each box.



4. Show pairs of S. facts.



Working with A. Facts and S. Facts

Sums as great as 7; problem-solving

1. Add.

4	3	4	2	1	3	5	2	5
1	2	3	3	6	3	0	4	2

2. Subtract.

5	7	5	6	6	5	7	5	6
1	2	3	0	3	4	4	2	4

Using Addition and Subtraction

Write your work.

1.

Tom has 3 eggs in his basket. He is getting 1 more egg. How many eggs will Tom have in all?

____ + ____ = ____ ____ eggs

2. Five big dogs were playing together. Two of them ran after Billy. Find how many dogs were left playing together.

____ − ____ = ____ ____ dogs

3. There are 3 apples on a plate and 3 more apples in a box. How many apples are there in all?

_____ ____ apples

4.

Jane was playing with 6 kittens. Two of them ran away. How many kittens were with Jane then?

_____ ____ kittens

Values of sets of coins

1 quarter 25¢

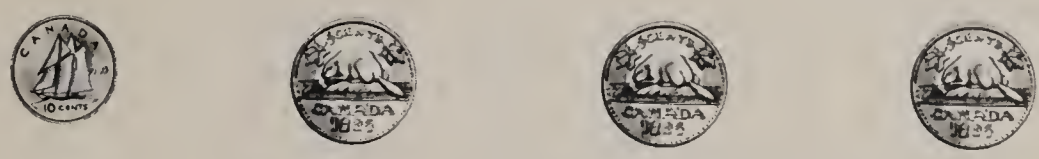
1. How much? Write the answers.

a.

1 quarter or ____ cents ____ ¢

b.

1 quarter or ____ nickels ____ ¢

c. 

1 quarter or ____ dime and ____ nickels ____ ¢

d.

1 quarter or ____ dimes and ____ nickel ____ ¢

2. How much money is shown in each picture?

a.

____ ¢

b.

____ ¢

c.

____ ¢

d.

____ ¢

e.

____ ¢

f.

____ ¢

Do You Know?

1. a. Finish writing about a set of 5 and its parts 4 and 1.

5; ___ and ___

5; ___ and ___

b. Finish writing about a set of 7 and its parts 4 and 3.

7; ___ and ___

7; ___ and ___

2. One part of a set of 6 is 4.

The other part is ___.

3. One name for the number five is 5. Another name is 2 + ___.

4. Finish the work to show pairs of facts.

a.

3	
+ 4	___

b.

6	
− 4	___

5. a. ___ ¢

b. ___ ¢

6. Write = or ≠ in each ring.

a. 3 + 4 ◯ 6 **c.** 2 + 3 ◯ 5

b. 6 − 2 ◯ 4 **d.** 7 − 5 ◯ 3

7. Finish these:

a. 1 ten and 5 ones ☐

b. 40 ___ tens and ___ ones

c. 93 ___ tens and ___ ones

8. Write the answers.

a. 2 + 4 = ☐ **d.** 0 + 3 = ☐

b. 6 − 6 = ☐ **e.** 8 − 1 = ☐

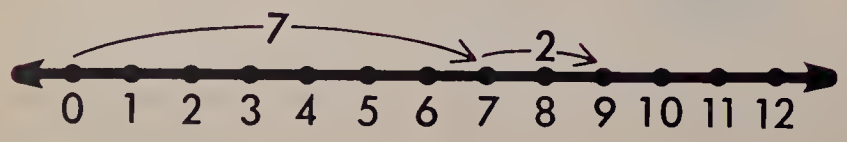
c. 5 − 3 = ☐ **f.** 7 + 2 = ☐

g. 2 + 3 + 2 = ☐

h. 4 + 3 − 3 = ☐

9. Count by 2's. 2 4 6 ___ ___ ___ ___ ___ ___ 20

10. Count by 10's. 10 20 30 ___ ___ ___ ___ ___ ___ 100

11. 

What is the fact? ___

Pairs of A. Facts and Pairs of S. Facts

Related A. and S. facts

1.

5 boys in all

3 are in boat A. 2 are in boat B.

One part of a set of 5 is 3, so the other part is ____.

Show the pair of A. facts.

3 + ____ = ____

2 + ____ = ____

Show the pair of S. facts.

Cover 2 boys. 5 − ____ = ____

Cover 3 boys. 5 − ____ = ____

There are 2 addition facts and ____ subtraction facts.

This is the set of ____ A. and S. facts using 5, 3, and 2.

2.

____ fish in all

____ are little fish. ____ are big fish.

One part of a set of 7 is 5, so the other part is ____.

Show the pair of A. facts.

____ + ____ = ____

____ + ____ = ____

Show the pair of S. facts.

Cover 2 fish. ____ − ____ = ____

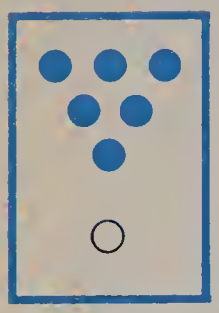
Cover 5 fish. ____ − ____ = ____

There are ____ facts in the set of A. and S. facts using 7, 5, and 2.

Sets of A. and S. Facts

Related A. and S. facts

1.



7 dots in all

___ are blue.

___ is white.

Show the set of A. and S. facts using 7, 6, and 1.

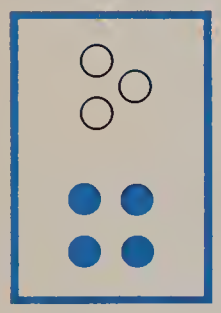
6 + 1 = 7

7 − 1 = 6

___ + ___ = ___

___ − ___ = ___

2.



___ dots in all

___ are white.

___ are blue.

Show the set of A. and S. facts using 7, 3, and 4.

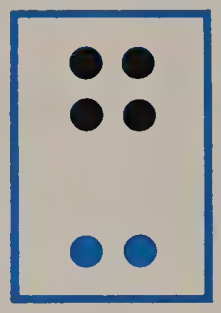
___ + ___ = ___

___ + ___ = ___

___ − ___ = ___

___ − ___ = ___

3.



___ dots in all

___ dots are black.

___ dots are blue.

Show the set of A. and S. facts using 6, 4, and 2.

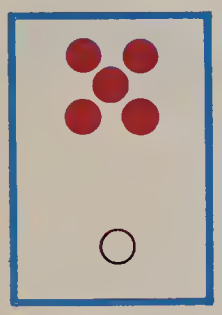
___ + ___ = ___

___ + ___ = ___

___ − ___ = ___

___ − ___ = ___

4.



___ dots in all

___ dots are red.

___ dot is white.

Show the set of A. and S. facts using 6, 5, and 1.

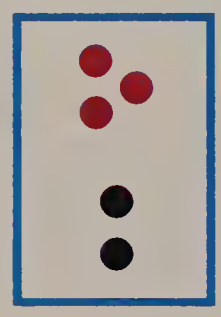
___ + ___ = ___

___ + ___ = ___

___ − ___ = ___

___ − ___ = ___

5.



___ dots in all

___ dots are red.

___ dots are black.

Show the set of A. and S. facts using 5, 3, and 2.

___ + ___ = ___

___ + ___ = ___

___ − ___ = ___

___ − ___ = ___

More Sets of A. and S. Facts

Related A. and S. facts

1.

____ stars in all

____ is orange.

____ are white.

1 + 5 =	5 + 1 =	6 + 5 =	6 + 1 =

2.

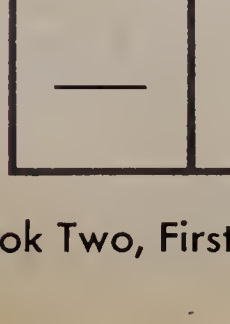
____ stars in all

____ are red.

____ are blue.

____	____	____	____

3.



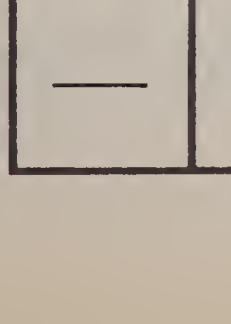
____ stars in all

____ are blue.

____ are yellow.

____	____	____	____

4.



____ stars in all

____ are yellow.

____ are red.

____	____	____	____

5.

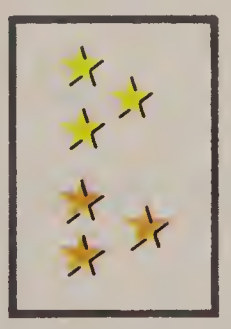
____ stars in all

____ is red.

____ are blue.

____	____	____	____

6.



____ stars in all

____ are yellow.

____ are orange.

____	____

How many facts are in this set of A. and S. facts?

_____

Pairs of Parts of a Set of 8

Separating a set into two subsets

1. ___ boys in all

___ boys have bows. ___ boy has no bow.

8; ___ and ___ 8; ___ and ___

2. ___ boys in all

___ boys are standing. ___ boys are not standing.

8; ___ and ___ 8; ___ and ___

3. ___ boys in all

___ boys have Indian hats. ___ boys have no hats.

8; ___ and ___ 8; ___ and ___

4. ___ boys in all

___ boys are in back of trees. ___ boys are not in back of trees.

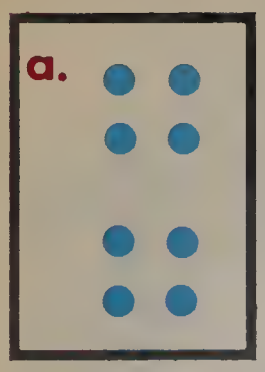
8; ___ and ___

Writing about Pairs of Parts of a Set of 8

Separating a set into two subsets

1. Write about the parts of a set of 8 for each dot picture.

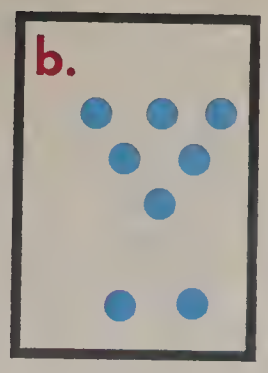
a.



8; ___ and ___

___; ___ and ___

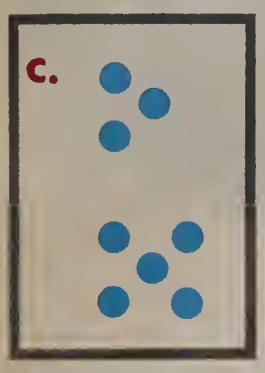
b.



___; ___ and ___

___; ___ and ___

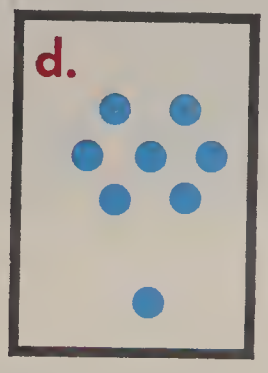
c.



___; ___ and ___

___; ___ and ___

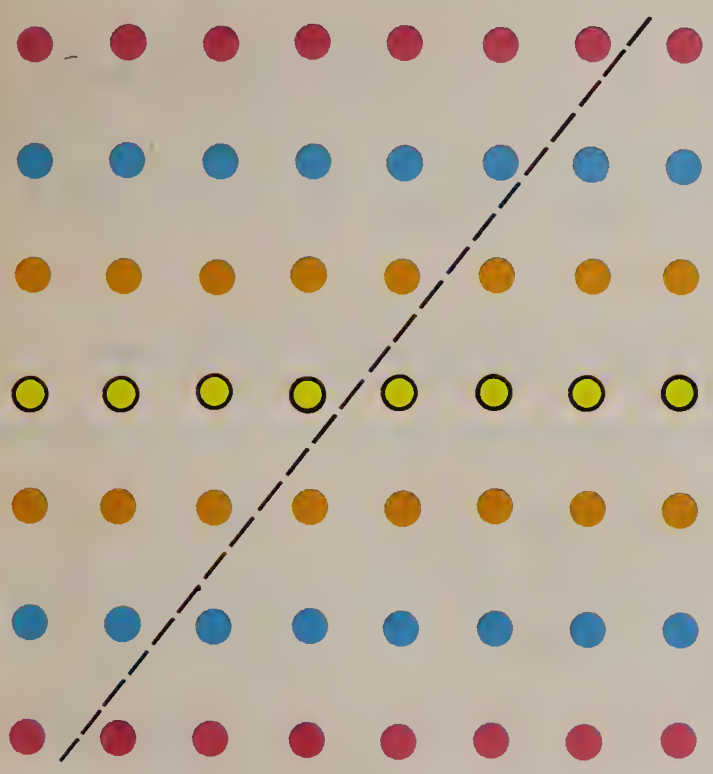
d.



___; ___ and ___

___; ___ and ___

2. Finish writing about these sets of 8 and the parts shown:

a.  8; 7 and 1 8; 1 and 7

b. 8; ___ and ___ 8; ___ and ___

c. 8; ___ and ___ 8; ___ and ___

d. 8; ___ and ___ 8; ___ and ___

e. 8; ___ and ___ 8; ___ and ___

f. 8; ___ and ___ 8; ___ and ___

g. 8; ___ and ___ 8; ___ and ___

3. Finish this.

Number for one part of a set of 8 things	5	2	4	7	3	1	6
Number for the other part of a set of 8 things	3	6					

The Set of A. and S. Facts Using 8, 7, and 1

Related A. and S. facts

1. ___ cows in all. ___ are red cows. ___ is a black cow.

a. Finish to show the pair of A. facts. $7 + ___ = ___$ $1 + ___ = ___$

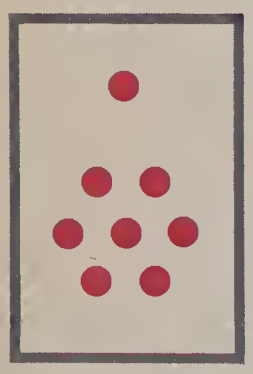
b. Finish to show the pair of S. facts. $8 - 1 = ___$ $8 - ___ = ___$

c. Your work shows the set of A. and S. facts using 8, 7, and ___.

2. ___ bags in all. ___ bag is open. ___ bags are not open.

Write + or − in each ring to show the set of A. and S. facts using 8, 7, and 1.

$1 \bigcirc 7 = 8$	$7 \bigcirc 1 = 8$
$8 \bigcirc 7 = 1$	$8 \bigcirc 1 = 7$



3. a. There are ___ dots in the set.

___; ___ and ___

b. Show the set of A. and S. facts.

___ ___ ___ ___

Show the set of A. and S. facts using 7, 4, and 3.

_____ _____ _____ _____

The Set of A. and S. Facts Using 8, 6, and 2

Related A. and S. facts

1. ___ pigs in all. ___ are little pigs. ___ are big pigs.

a. Finish to show the pair of A. facts. 6 + ___ = ___ ___

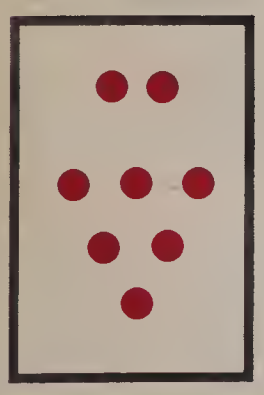
b. Finish to show the pair of S. facts. 8 − ___ = ___ ___

c. Your work shows the set of A. and S. facts using ___, 6, and ___.

2. ___ pigs in all. ___ are eating. ___ are not eating.

Write + or − in each ring to show the set of A. and S. facts using 8, 6, and 2.

2 ◯ 6 = 8	6 ◯ 2 = 8
8 ◯ 6 = 2	8 ◯ 2 = 6



3. a. There are ___ dots in the set.

___; ___ and ___

b. Show the set of A. and S. facts.

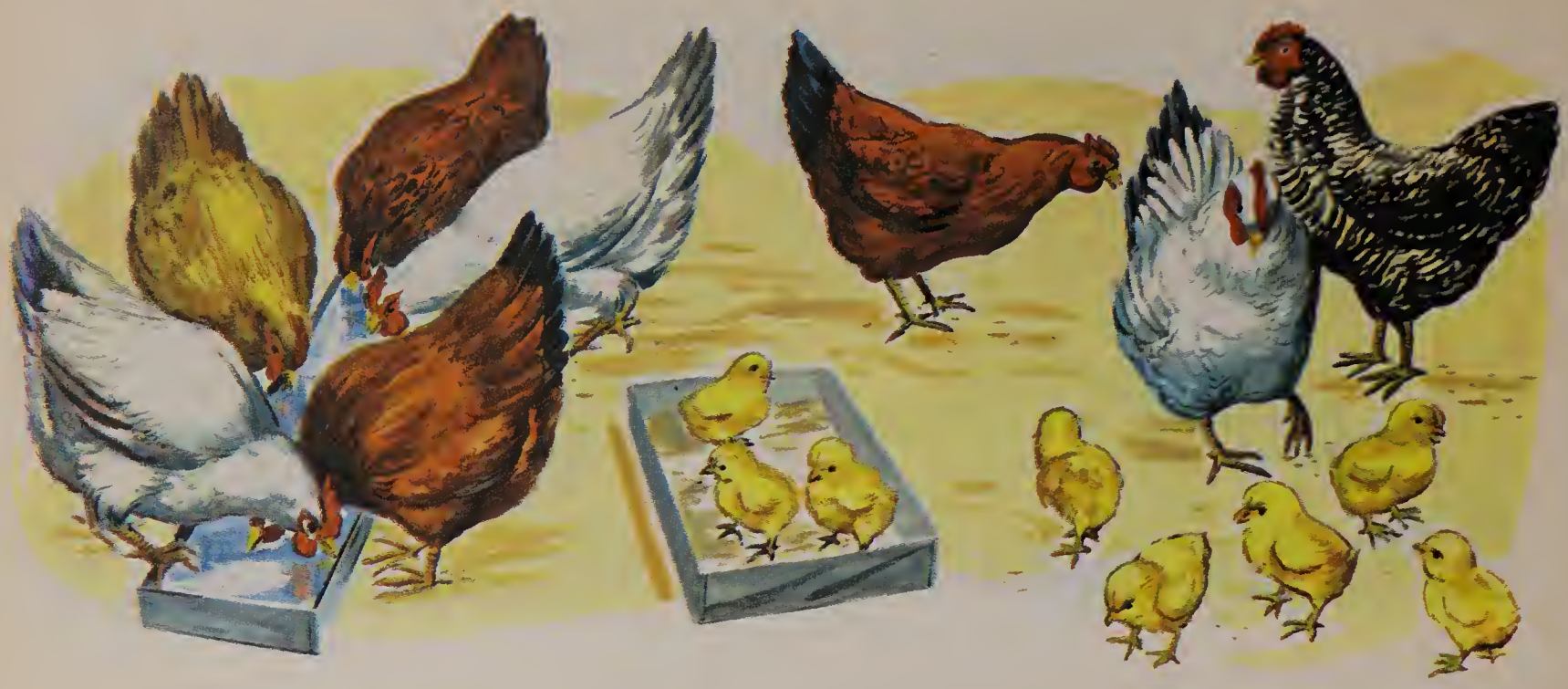
___ ___ ___ ___

Show the set of A. and S. facts using 8, 7, and 1.

___ ___ ___ ___

The Set of A. and S. Facts Using 8, 5, and 3

Related A. and S. facts



1. ___ hens in all. ___ hens are drinking. ___ are not drinking.

a. Finish to show the set of A. facts. 5 + ___ = ___ ___

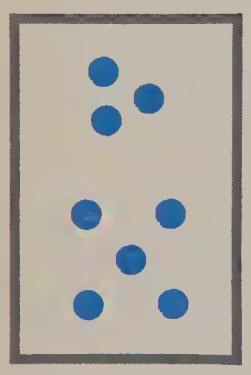
b. Finish to show the set of S. facts. 8 − ___ = ___ ___

c. Your work shows the set of A. and S. facts using ___, 5, and ___.

2. ___ chicks in all. ___ are in a box. ___ are not in a box.

Write + or − in each ring to show the set of A. and S. facts using 8, 5, and 3.

3 ◯ 5 = 8	5 ◯ 3 = 8
8 ◯ 5 = 3	8 ◯ 3 = 5



3. a. There are ___ dots in the set.

___; ___ and ___

b. Show the set of A. and S. facts.

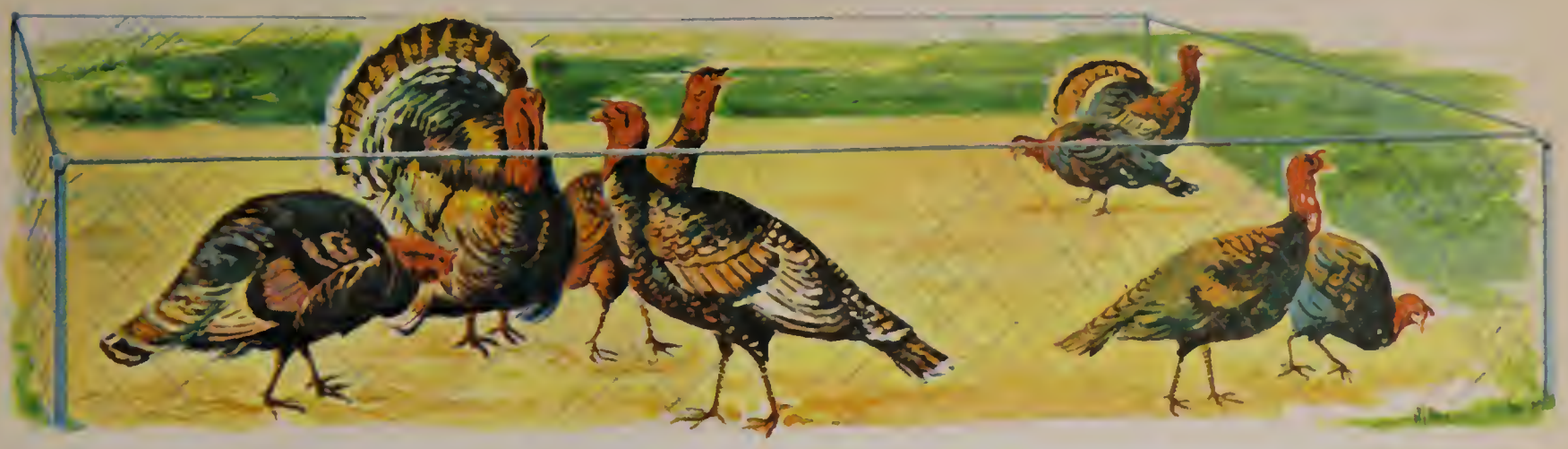
___ ___ ___ ___

Show the set of A. and S. facts using 8, 6, and 2.

___ ___ ___ ___

The Set of A. and S. Facts Using 8, 4, and 4

Related A. and S. facts; addition and subtraction practice



1. ___ turkeys in the set. ___ turkeys are big. ___ are little.

a. One addition fact is 4 + ___ = ___.

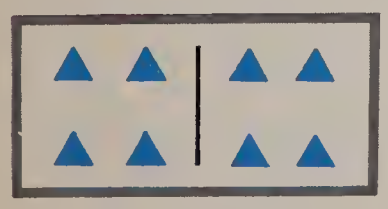
Is there a pair of A. facts using 8, 4, and 4? Yes No

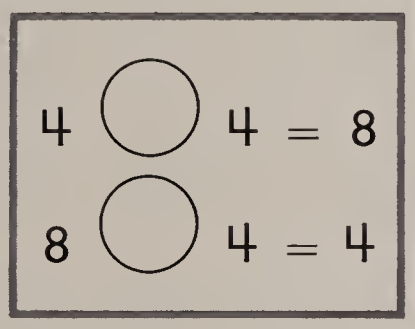
b. One subtraction fact is 8 − ___ = ___.

Is there a pair of A. facts using 8, 4, and 4? Yes No

c. Your work shows the set of A. and S. facts using ___, 4, and ___.

2. Write + or − in each ring to show the set of A. and S. facts.





3. Show the set of A. and S. facts using 8, 5, and 3.

___ ___ ___ ___

● Write the answers. Look for + and −.

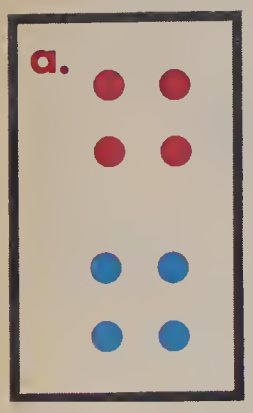
1.	5 + 1 = ___	4 + 3 = ___	7 − 0 = ___	4 + 2 = ___
2.	1 + 6 = ___	7 − 2 = ___	2 + 5 = ___	7 − 3 = ___
3.	6 + 0 = ___	7 − 4 = ___	7 − 6 = ___	5 + 2 = ___
4.	7 − 5 = ___	10 − 2 = ___	3 + 4 = ___	7 + 2 = ___

More about Sets of A. and S. Facts

Related A. and S. facts; inverses

1. For each picture, write in one way about the parts. Then show the set of A. and S. facts.

a.



8 ; 4 and 4

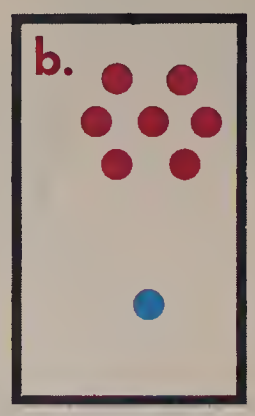
8 = 4 + 4

8 = 4 + 4

4 + 4 = 8

4 + 4 = 8

b.



___ ; ___ and ___

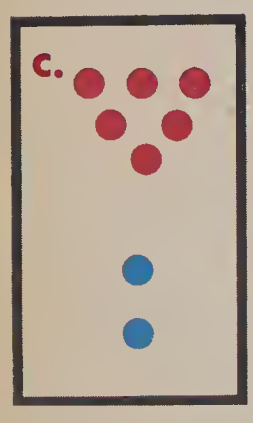
___ = ___ + ___

___ = ___ + ___

___ + ___ = ___

___ + ___ = ___

c.



___ ; ___ and ___

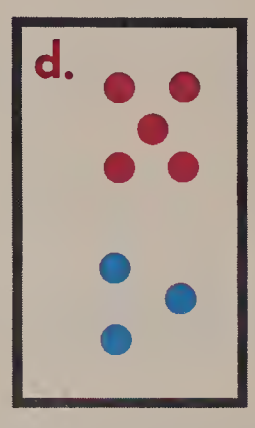
___ = ___ + ___

___ = ___ + ___

___ + ___ = ___

___ + ___ = ___

d.



___ ; ___ and ___

___ = ___ + ___

___ = ___ + ___

___ + ___ = ___

___ + ___ = ___

2. Finish these to show A. facts and S. facts:

a. 8 + ___ = 8 . . . . . 8 − ___ = 8

b. 7 + ___ = 8 . . . . . 8 − ___ = 7

c. 6 + ___ = 8 . . . . . 8 − ___ = 6

d. 5 + ___ = 8 . . . . . 8 − ___ = 5

e. 4 + ___ = 8 . . . . . 8 − ___ = 4

f. 3 + ___ = 8 . . . . . 8 − ___ = 3

g. 2 + ___ = 8 . . . . . 8 − ___ = 2

h. 1 + ___ = 8 . . . . . 8 − ___ = 1

i. 0 + ___ = 8 . . . . . 8 − ___ = 0

Using Addition and Subtraction

Problem-solving; equalities and inequalities

1. Write your work.

a. Mary has 2 big balloons and 4 little balloons. Find how many balloons she has in all.

_____ ____ balloons

b. Nan must give the store man 2 cents for some candy and 3 cents for an apple. How many cents in all must Nan give the store man?

____ ¢ + ____ ¢ = ____ ¢ ____ cents

c. Betty has 6 pieces of candy. She will give 2 of the pieces to Nan. Find how many pieces of the candy Betty will have left.

_____ ____ pieces

d. Tom spent some of his money for 5 candy fish. He ate 2 of them. How many of the fish were left?

_____ ____ fish

e. Sam played with 3 green balls and 3 blue balls. Find how many balls Sam played with in all.

_____ ____ balls

2. Write the answers.

a. $2 + 3 + 2 =$ ____

b. $3 + 2 + 1 =$ ____

c.
$$\begin{array}{r} 2 \\ 2 \\ \hline 1 \end{array}$$

d.
$$\begin{array}{r} 1¢ \\ 4¢ \\ \hline 2¢ \end{array}$$

¢

3. In each ring, write G for <u>is greater than</u> or L for <u>is less than</u>.

a. $5 + 2 \bigcirc 3 + 3$

b. $3 + 2 \bigcirc 6 - 2$

c. $7 - 0 \bigcirc 4 + 2$

d. $7 - 6 \bigcirc 6 - 4$

e. $7 - 5 \bigcirc 6 - 2$

f. $7 - 4 \bigcirc 0 + 4$

g. $3 + 4 \bigcirc 6 - 3$

h. $3 + 4 \bigcirc 1 + 5$

4. Are $6 - 2$ and $2 - 6$ names for the same number? Yes No

Telling Time

Identifying the hour and the half hour

1. In this picture, the long hand is

at 12. The short hand is at 6. The time shown is 6 o'clock.

2. The long hand is at ____. What time is shown?

a.

____ o'clock

b.

____ o'clock

3. In this picture, the long hand is

at 6. The short hand has gone past 2. The time shown is half past 2.

4. In this picture, the long hand is

at 6. The short hand has gone past ____. The time shown is half past ____.

5. The long hand is at ____. The

short hand has gone past ____. The time shown is half past ____.

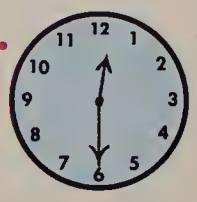
6. The long hand is at ____. The

short hand has gone past ____. The time shown is half past ____.

7. What time is shown in each picture?

a.

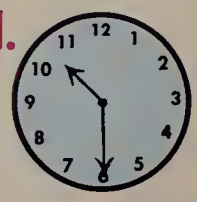
half past ____

b. 

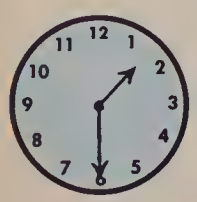
half past ____

c.

half past ____

d. 

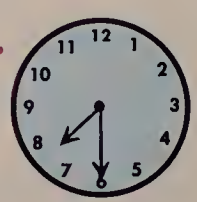
half past ____

e. 

half past ____

f.

half past ____

g. 

half past ____

h.

half past ____

More about Time

Showing the hour and the half hour; addition and subtraction practice

1. Draw both hands on each clock. Point them to show the time.

a. 2 o'clock

b. 10 o'clock

2. Draw the long hand on each clock. Point it to show the time.

a. half past 12

b. half past 8

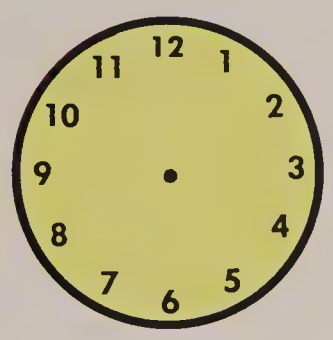
3. Draw the short hand on each clock. Point it to show the time.

a. half past 1

b. half past 9

4. Draw both hands on each clock. Point them to show the time.

a. half past 3



b. half past 11

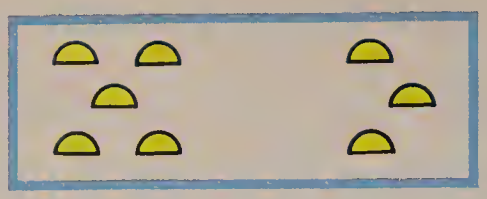
● Write the answers. Look for + and −.

1.	4 + 1 = ___	6 − 2 = ___	5 + 2 = ___	6 − 3 = ___
2.	4 + 2 = ___	3 + 3 = ___	1 + 6 = ___	2 + 3 = ___
3.	5 − 2 = ___	7 − 2 = ___	5 − 5 = ___	2 + 4 = ___
4.	8 − 1 = ___	10 − 2 = ___	7 + 1 = ___	9 + 1 = ___
5.	7 − 0 = ___	9 − 1 = ___	8 + 2 = ___	5 + 0 = ___
6.	2 + 2 + 3 = ___	4 + 1 + 1 = ___	2¢ + 4¢ + 1¢ = ___¢	

Write G or L in each ring: **a.** 7 − 5 ◯ 5 − 4 **b.** 7 − 3 ◯ 1 + 4

Do You Remember?

1. Show the set of A. and S. facts.



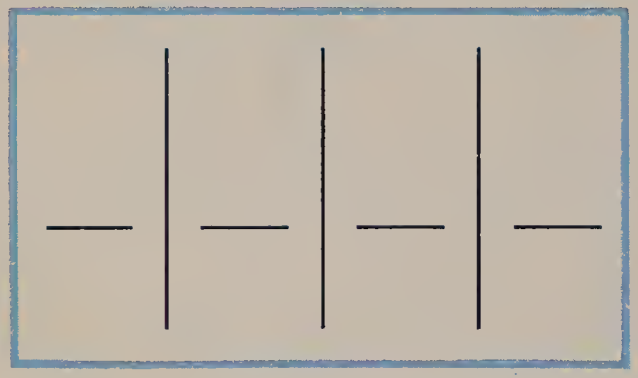
___ + ___ = ___

___ + ___ = ___

___ − ___ = ___

___ − ___ = ___

2. Show the set of A. and S. facts.



3. Show two facts in each set.

4 + 4	___

3 + 3	___

4. 5 nickels ___¢

5. Write G or L in each ring.

a. 7 − 4 ◯ 6 − 2

b. 5 + 2 ◯ 2 + 4

6. One name for the number eight is 8. Another name is 4 + ___.

7. One part of a set of 8 is 7. The other part is ___.

8. What time? Show the time.

half past ___

half past 7

9. Show odd numbers.

3 5 7 ___ ___ ___ 15

10. Write the answers.

4 + 3 = ☐ 7¢ − 5¢ = ☐¢

9 − 2 = ☐ 8¢ + 2¢ = ☐¢

5 + 2 − 2 = ☐

11. George had 7 toys. He gave 3 of them to Billy. How many toys did George have left?

_____ ___ toys

12. Mother gave 5¢ to Ned and 2¢ to Ellen. How much did she give them in all?

_____ ___ cents

Counting by 5's, by 2's, and by 10's

Sequences; addition and subtraction practice

1.

Jack has 5 nickels. To find how much he has, count by 5's.

5¢ 10¢ ___¢ ___¢ ___¢

Jack has ___¢ in all.

2. Count by 5's.

5 ___ ___ ___ ___ ___ ___ ___ ___ ___

3. Count by 5's. Write the missing numerals.

a.	10	15	___	___		**d.**	15	___	___	___
b.	30	___	40	___		**e.**	___	40	45	___
c.	25	___	___	___		**f.**	___	___	30	___

4. Now count by 2's.

a.	8	___	12	___
b.	___	16	___	20
c.	___	___	14	___

5. Now count by 10's.

a.	30	40	___	___
b.	___	20	___	40
c.	70	___	___	100

● Write the answers. Look for + and − .

1.	5 + 1 = ___	7 − 3 = ___	2 + 4 = ___	7 − 4 = ___
2.	2 + 5 = ___	7 − 0 = ___	7 − 5 = ___	1 + 6 = ___
3.	7 − 2 = ___	5 + 2 = ___	7 − 6 = ___	3 + 4 = ___
4.	2 + 1 + 2 = ___	2 + 3 + 1 = ___	3¢ + 2¢ + 2¢ = ___¢	

Working with Addition Facts

Using the Commutative Property of Addition

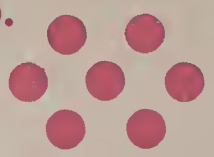
1. In each of **a**, **b**, and **c**, draw more dots to make a set of 8 dots. Then show the pair of A. facts.

a.

5 + _____ = _____

_____

b.



_____

_____

c.

_____

_____

d.

2. In **d**, draw more dots to make a set of 8. For your dot picture, is there a pair of A. facts?

Yes No

Show the one A. fact. _____

3. Finish to show an A. fact. Then show the other A. fact of the pair.

a. 4 + 3 = ☐ _____ _____

b. 2 + 6 = ☐ _____ _____

c. 6 + 1 = ☐ _____ _____

d. 2 + 4 = ☐ _____ _____

e. 3 + 5 = ☐ _____ _____

f. 5 + 1 = ☐ _____ _____

g. 1 + 7 = ☐ _____ _____

h. 2 + 5 = ☐ _____ _____

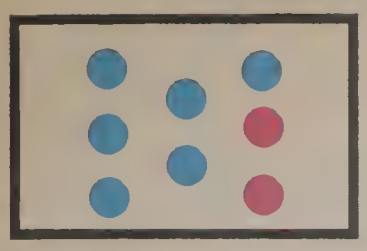
4. Add. Show the sums. Pairs of A. facts may help you.

3	1	3	2	4	1	2	4¢	2¢
5	6	2	5	4	7	6	2¢	3¢
7	2	6	4	5	3	5	5¢	3¢
1	4	2	3	2	3	1	3¢	4¢

Working with Subtraction Facts

1. For each of **a**, **b**, and **c**, show the pair of S. facts.

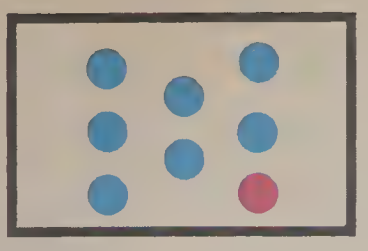
a.



8 − ____ = ____

8 − ____ = ____

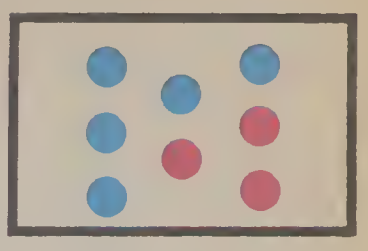
b.



____

____

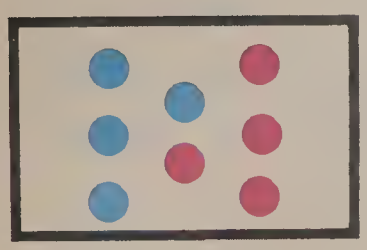
c.



____

____

d.



2. For **d**, is there a pair of S. facts? Yes No

Show the one S. fact. ____

3. Finish to show a S. fact. Then show the other S. fact of the pair.

a. 8 − 7 = ☐ ____

b. 8 − 6 = ☐ ____

c. 7 − 4 = ☐ ____

d. 7 − 2 = ☐ ____

e. 5 − 4 = ☐ ____

f. 6 − 4 = ☐ ____

g. 8 − 5 = ☐ ____

h. 7 − 6 = ☐ ____

4. Subtract. Write the answers. Pairs of S. facts may help you.

8	7	8	6	8	5	7	8	7¢
3	2	7	4	2	3	4	5	6¢
7	8	6	5	7	8	6	7	8¢
3	1	3	2	1	4	2	5	6¢

Halves and One Half of a Whole Thing

Identifying halves of single objects

1.

The apple is in ___ pieces. The pieces are the same size. The apple is cut in halves. Each piece is one half of the apple.

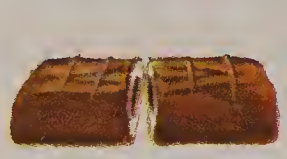
2.

The cake is in ___ pieces. The pieces are not the same size. The cake is not cut in halves. Each piece is not one half of the cake.

3. Draw a ring around each picture that shows halves.

a.

b.



c.

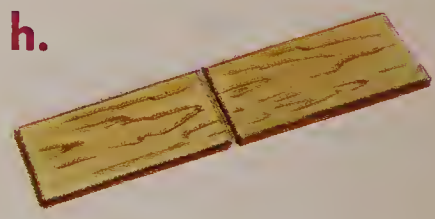
d.

e.

f.

g.

h.

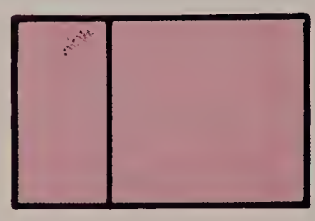


4. Some of these show halves. Write X on each part that shows one half.

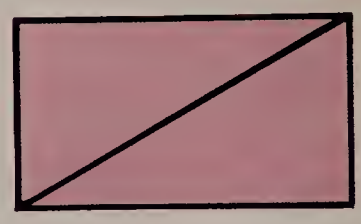
a.

b.

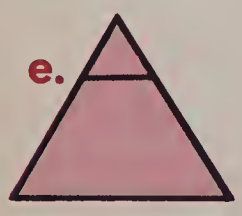
c.



d.

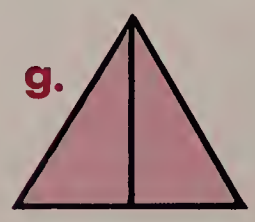


e.



f.

g.



h.

Showing Halves of a Whole Thing

Halves of single objects; addition and subtraction practice

Halves of the same thing are the same size.
Make each picture show halves.

1.

2.

3.

4.

5.

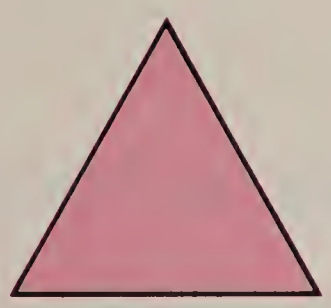
6.

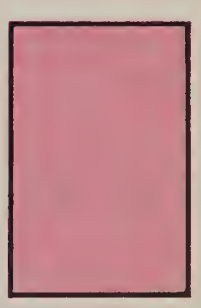
7.

8.

9.

10.

11. 

12. 

● Write the answers. Look for + and −.

1.	3 + 3 = ___	6 + 2 = ___	7 + 1 = ___	5 + 1 = ___
2.	2 + 6 = ___	3 + 5 = ___	6 + 1 = ___	1 + 7 = ___
3.	7 − 3 = ___	8 − 4 = ___	7 − 4 = ___	8 − 2 = ___
4.	8 − 3 = ___	7 − 5 = ___	8 − 5 = ___	8 − 6 = ___
5.	8 − 7 = ___	9 + 1 = ___	5 + 2 = ___	10 − 2 = ___
6.	1 + 2 + 5 = ___	3 + 1 + 3 = ___	3¢ + 2¢ + 2¢ = ___¢	

Write = or ≠ in each ring: a. 5 + 3 ◯ 9 − 2 b. 4 + 4 ◯ 6 + 2

Using Addition and Subtraction

Problem-solving; addition and subtraction practice

1. Listen to the problem your teacher reads.
If you are to add, draw a ring around +.
If you are to subtract, draw a ring around −.

a. + − **b.** + − **c.** + − **d.** + − **e.** + − **f.** + −

2. Listen to the problem your teacher reads. Then write your work.

Work problems **a**, **b**, **c** here.

a.	b.	c.

Work problems **d**, **e**, **f** here.

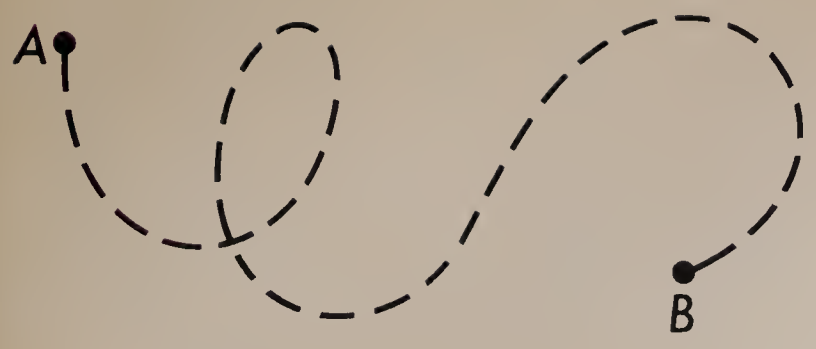
d.	e.	f.

● Write the answers. Look for + and −.

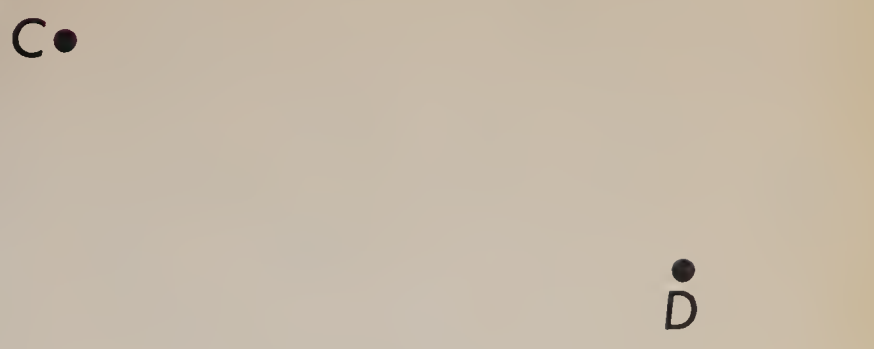
1. 7 + 1 = ___	4 + 0 = ___	2 + 6 = ___	8 − 4 = ___
2. 7 − 7 = ___	6 + 1 = ___	7 − 2 = ___	6 + 2 = ___
3. 7 − 4 = ___	5 + 3 = ___	2 + 5 = ___	8 − 3 = ___
4. 6 − 5 = ___	8 − 5 = ___	8 − 2 = ___	4 + 4 = ___

Showing Paths

1.

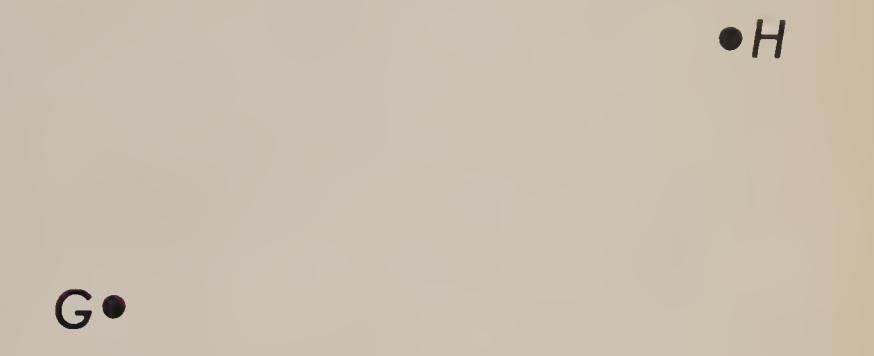


2.

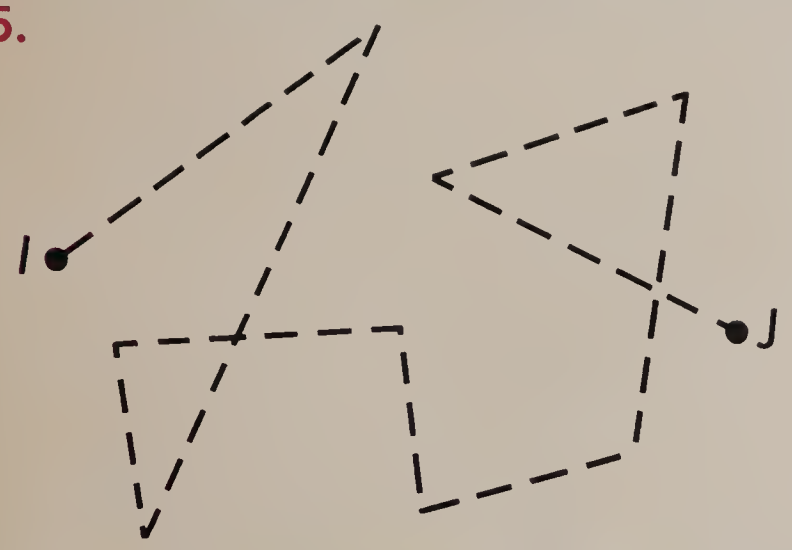


3.

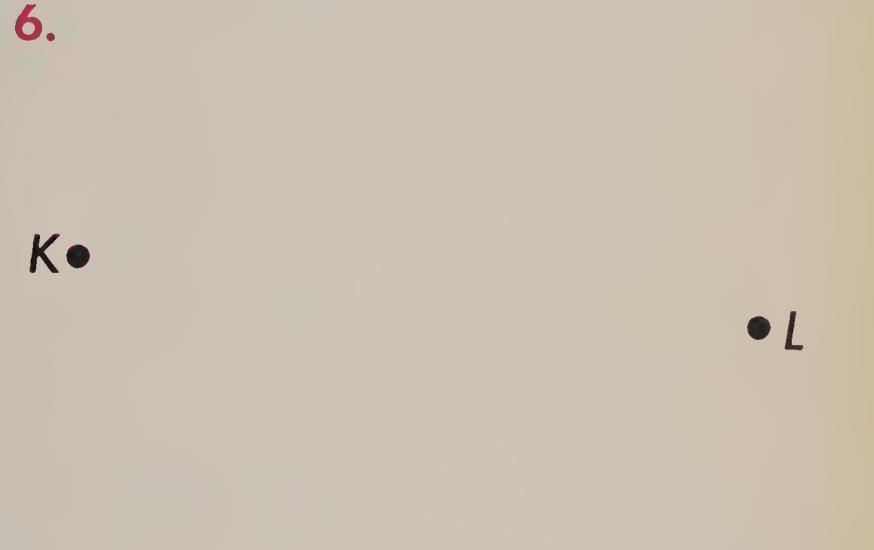
4.



5.

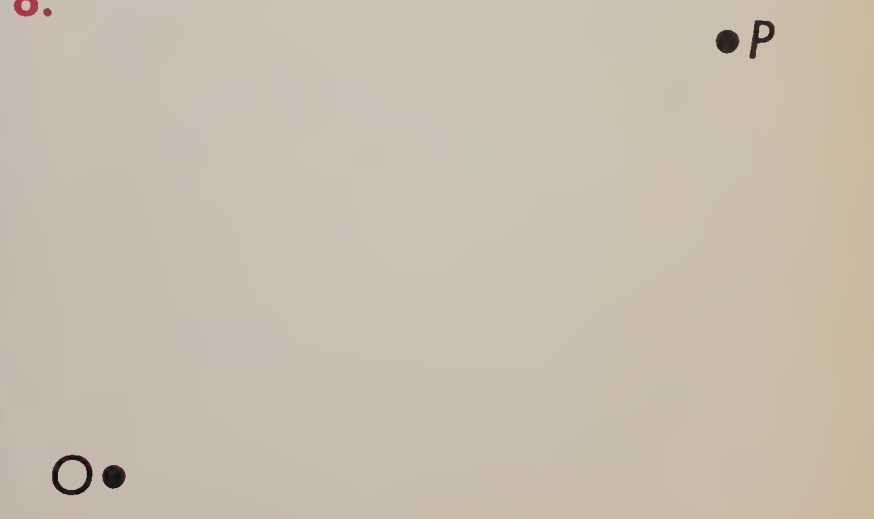


6.



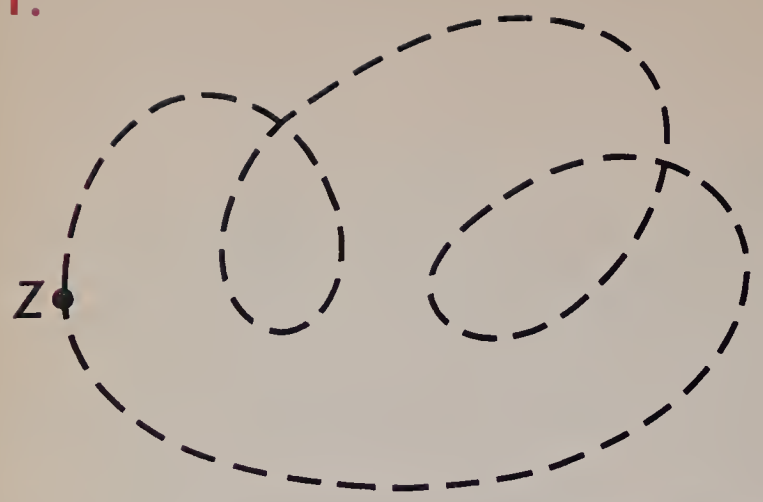
7.

8.



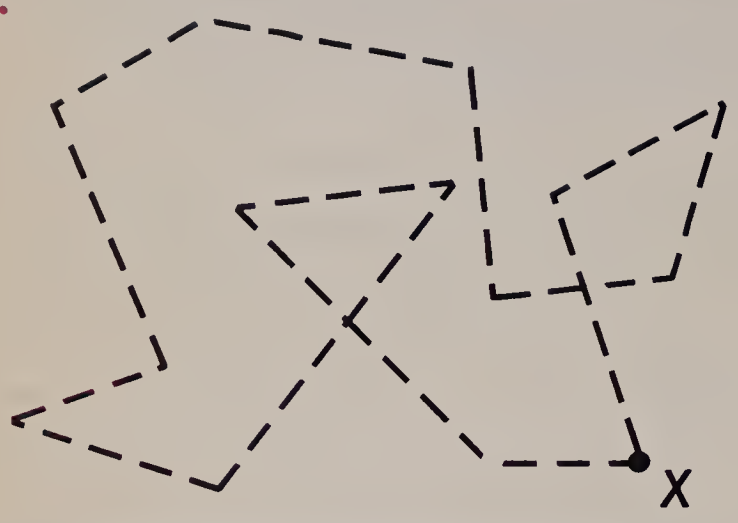
Showing Closed Paths

1.



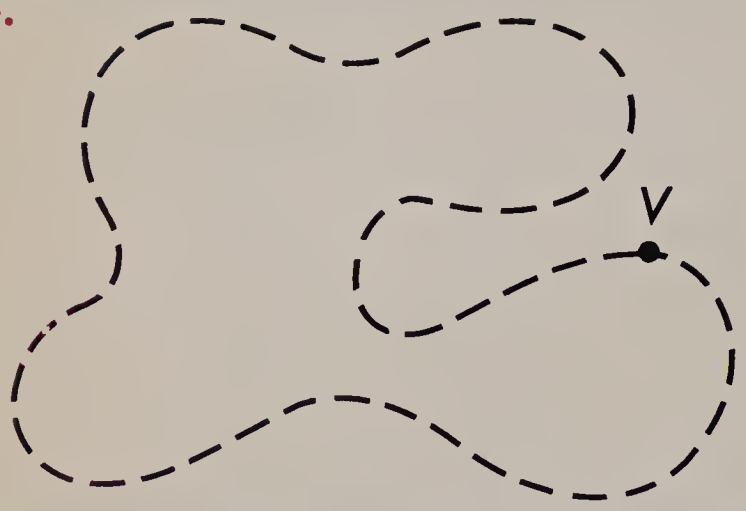
2.

3.



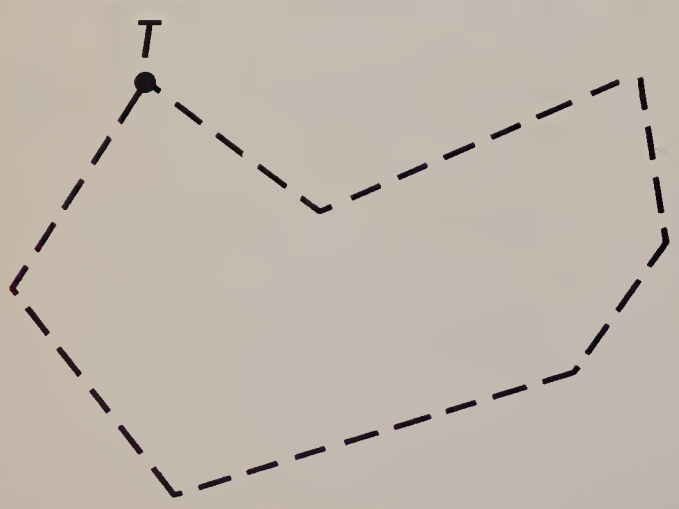
4.

5.



6.

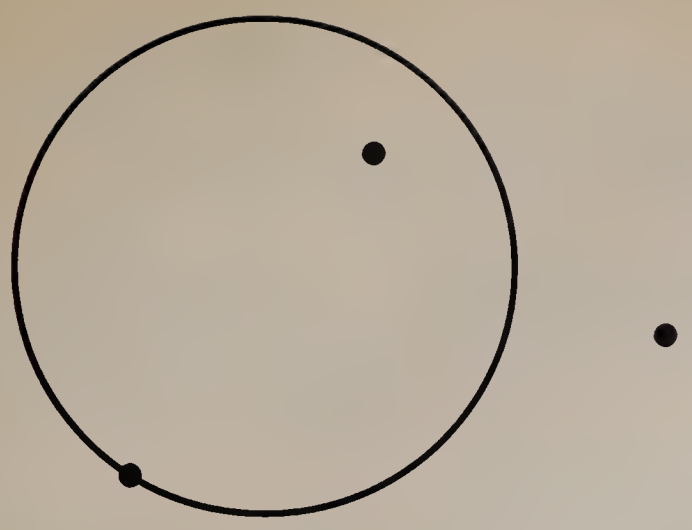
7.



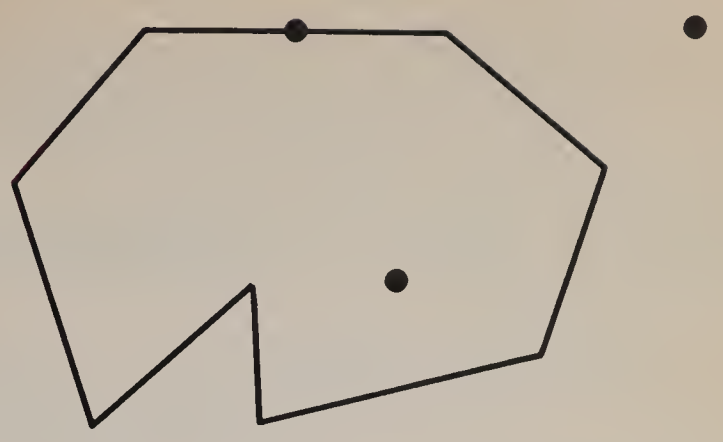
8.

More about Closed Paths

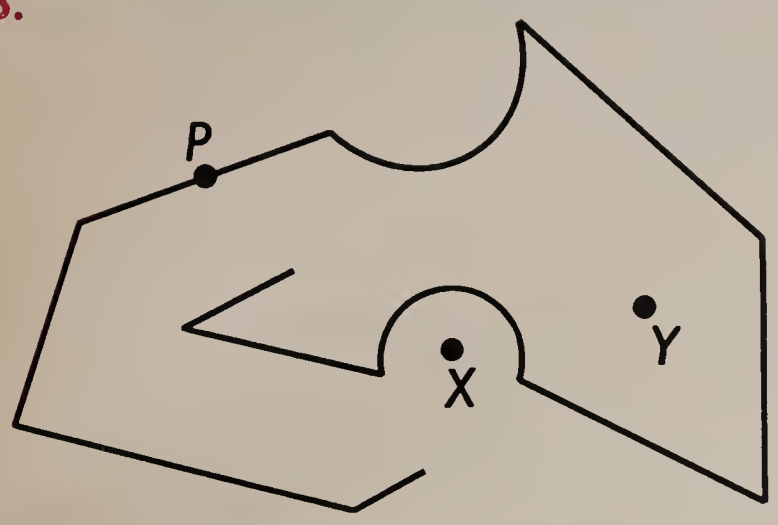
1.



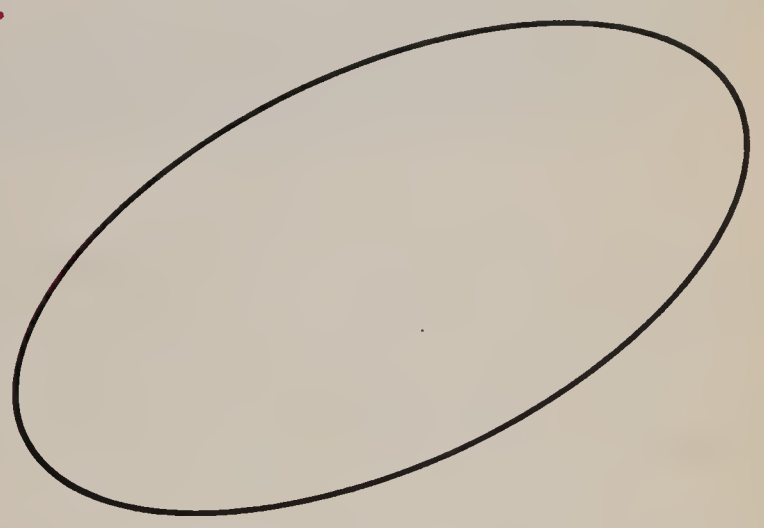
2.



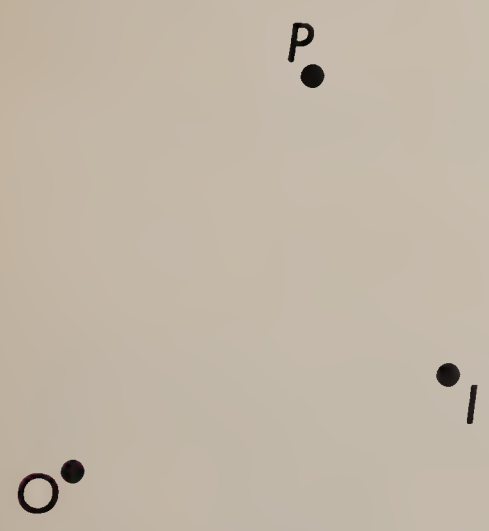
3.



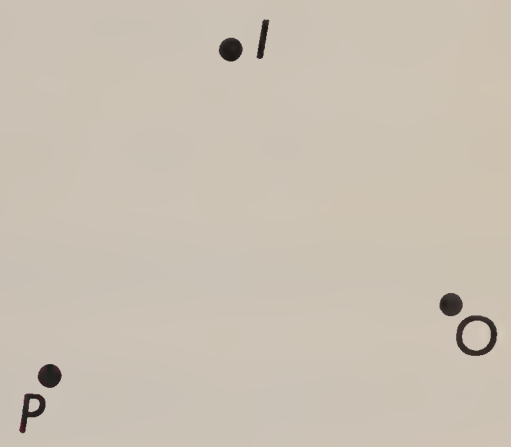
4.



5.



6.



7.

8.

Do You Know?

1. One part of a set of 8 is 6.

The other part is ____.

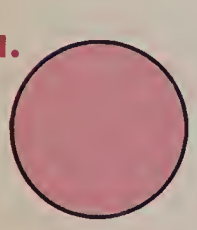
2. Show the set of A. and S. facts using 8, 4, and 4.

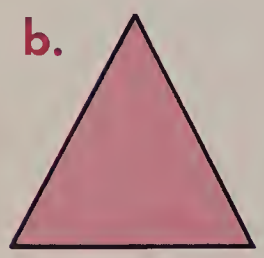
There are ____ facts.

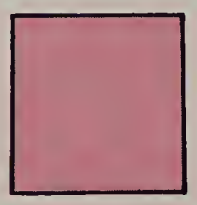
3. Show the set of A. and S. facts using 8, 5, and 3.

There are ____ facts.

4. Make each picture show halves.

a. 

b. 

c. 

5. Count by 5's.

a. 5 10 15 ____ ____ ____ 35

b. 25 30 ____ ____ ____ ____

6. Write the answers.

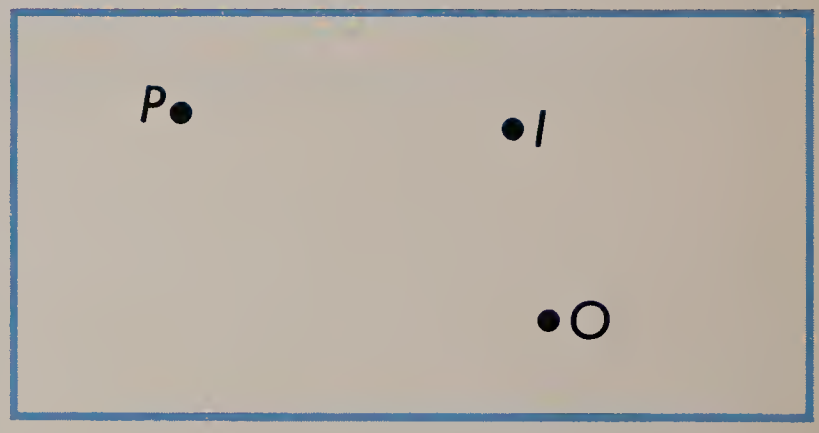
5	4	8	10	9¢
+ 3	+ 0	− 2	− 2	+ 1¢
3	4	1	2	3¢
1	2	5	3	2¢
3	2	1	1	3¢

7. Write G or L in each ring.

a. 4 + 2 ◯ 9 − 2

b. 7 − 4 ◯ 6 − 2

8.



9. Jack saw 4 cowboys on horses. Then he saw 3 more. How many cowboys did Jack see in all?

_____ ____ cowboys

10. Betty had 7 flowers on her hat. Three flowers were lost. Then how many flowers were on her hat?

_____ ____ flowers

Pairs of Parts of a Set of 9

Separating a set into two subsets

A

1. ___ houses in all. ___ houses are red. ___ houses are yellow.

9; 5 and ___ 9; ___ and ___

2. ___ houses in all

___ houses have no TV rods. ___ houses have TV rods.

9; ___ and ___ 9; ___ and ___

B

3. Write about the parts for **B**.

9; ___ and ___ 9; ___ and ___

C

4. Write about the parts for **C**.

9; ___ and ___ 9; ___ and ___

5. Pictures **A**, **B**, and **C** show parts of sets of 9. Which shows

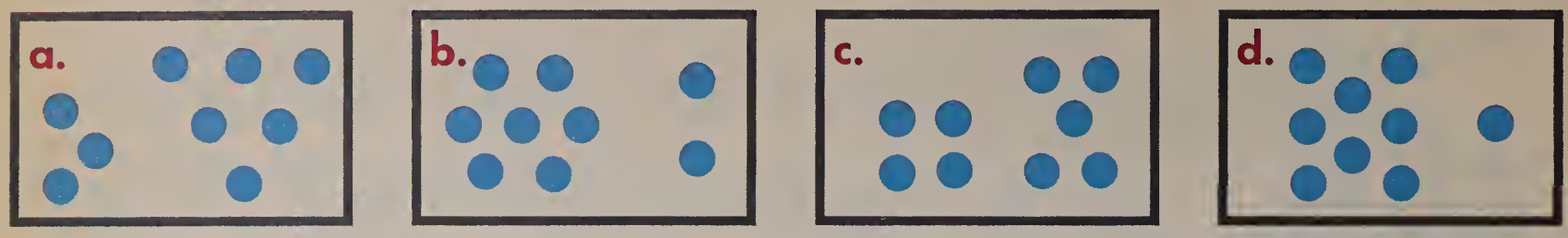
4 and 5? A 8 and 1? ___ 6 and 3? ___ 1 and 8? ___

7 and 2? ___ 5 and 4? ___ 2 and 7? ___ 3 and 6? ___

Writing about Pairs of Parts of a Set of 9

Separating a set into two subsets

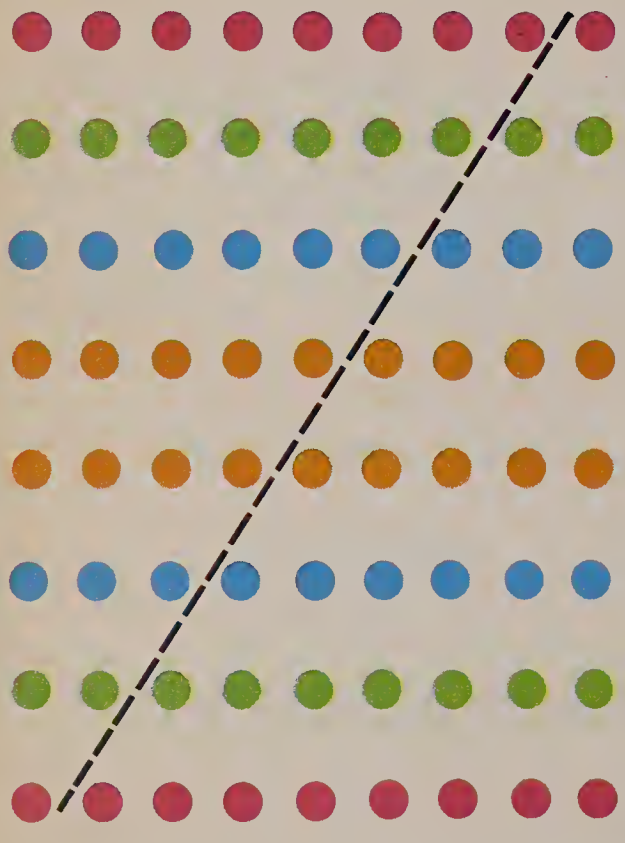
1. Write about these parts of a set of 9 in two ways:



9; ___ and ___ 9; ___ and ___ 9; ___ and ___ 9; ___ and ___

9; ___ and ___ 9; ___ and ___ 9; ___ and ___ 9; ___ and ___

2. Finish writing about these parts of a set of 9.



a. 9; 8 and 1 9; 1 and 8

b. 9; ___ and ___ 9; ___ and ___

c. 9; ___ and ___ 9; ___ and ___

d. 9; ___ and ___ 9; ___ and ___

e. 9; ___ and ___ 9; ___ and ___

f. 9; ___ and ___ 9; ___ and ___

g. 9; ___ and ___ 9; ___ and ___

h. 9; ___ and ___ 9; ___ and ___

3. What is the other part?

a. One part of a set of 9 is 4.

The other part is ___.

b. One part of a set of 9 is 2.

The other part is ___.

c. One part of a set of 9 is 6.

The other part is ___.

d. One part of a set of 9 is 8.

The other part is ___.

The Set of A. and S. Facts Using 9, 8, and 1

Related A. and S. facts

1. ___ rocks in all. ___ rocks are together. ___ other rock.

a. Finish to show the pair of A. facts. 8 + ___ = ___ ___

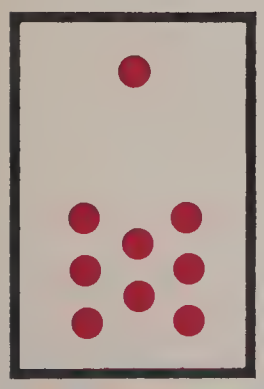
b. Finish to show the pair of S. facts. 9 − ___ = ___ ___

c. Your work shows the set of A. and S. facts using 9, 8, and ___.

2. ___ boats in all. ___ has no sail. ___ have sails.

Write + or − in each ring to show the set of A. and S. facts using 9, 8, and 1.

1 ◯ 8 = 9	8 ◯ 1 = 9
9 ◯ 8 = 1	9 ◯ 1 = 8



3. a. There are ___ dots in the set.

___; ___ and ___

b. Show the set of A. and S. facts.

___ ___ ___ ___

Show the set of A. and S. facts using 8, 5, and 3.

___ ___ ___ ___

The Set of A. and S. Facts Using 9, 7, and 2

Related A. and S. facts

1. ___ children in all. ___ are girls. ___ are boys.

a. Finish to show the pair of A. facts. 7 + ___ = ___ ___

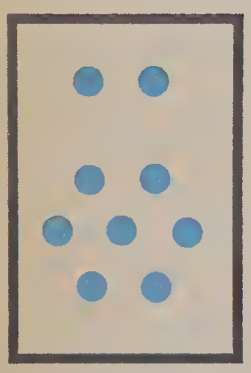
b. Finish to show the pair of S. facts. 9 − ___ = ___ ___

c. Your work shows the set of A. and S. facts using ___, 7, and ___.

2. ___ children in all. ___ with hats. ___ with no hats.

Write + or − in each ring to show the set of A. and S. facts using 9, 7, and 2.

2 ◯ 7 = 9	7 ◯ 2 = 9
9 ◯ 7 = 2	9 ◯ 2 = 7



3. a. There are ___ dots in the set.

___; ___ and ___

b. Show the set of A. and S. facts.

___ ___ ___ ___

Show the set of A. and S. facts using 9, 8, and 1.

___ ___ ___ ___

The Set of A. and S. Facts Using 9, 6, and 3

Related A. and S. facts

1. ___ sand houses in all. ___ are little. ___ are big.

a. Finish to show the pair of A. facts. 6 + ___ = ___ ___

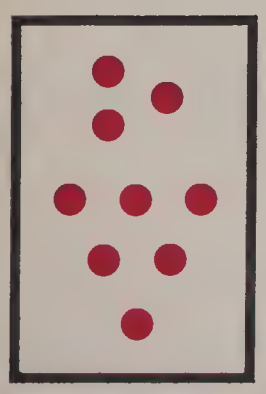
b. Finish to show the pair of S. facts. 9 − ___ = ___ ___

c. Your work shows the set of A. and S. facts using ___, 6, and ___.

2. ___ sand houses in all. ___ with flags. ___ with no flags.

Write + or − in each ring to show the set of A. and S. facts using 9, 6, and 3.

3 ◯ 6 = 9	6 ◯ 3 = 9
9 ◯ 6 = 3	9 ◯ 3 = 6



3. a. There are ___ dots in the set.

___; ___ and ___

b. Show the set of A. and S. facts.

___ ___ ___ ___

Show the set of A. and S. facts using 9, 7, and 2.

___ ___ ___ ___

The Set of A. and S. Facts Using 9, 5, and 4

Related A. and S. facts

1. ___ shells in all. ___ shells are white. ___ shells are not white.

a. Finish to show the pair of A. facts. 5 + ___ = ___ ___

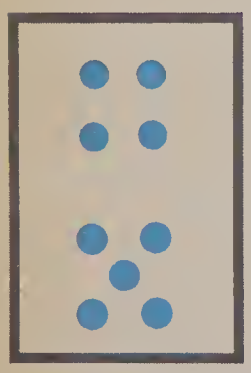
b. Finish to show the pair of S. facts. 9 − ___ = ___ ___

c. Your work shows the set of A. and S. facts using ___, 5, and ___.

2. ___ shells in all. Mary has ___ shells. Jack has ___ shells.

Write + or − in each ring to show the set of A. and S. facts using 9, 5, and 4.

4 ◯ 5 = 9	5 ◯ 4 = 9
9 ◯ 5 = 4	9 ◯ 4 = 5



3. a. There are ___ dots in the set.

___; ___ and ___

b. Show the set of A. and S. facts.

___ ___ ___ ___

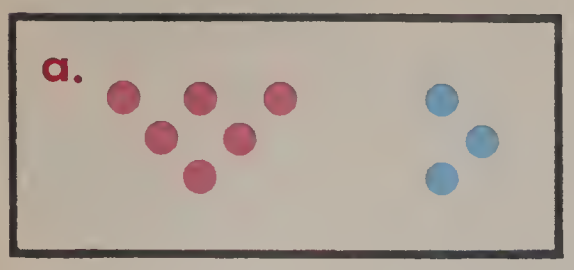
Show the set of A. and S. facts using 9, 6, and 3.

___ ___ ___ ___

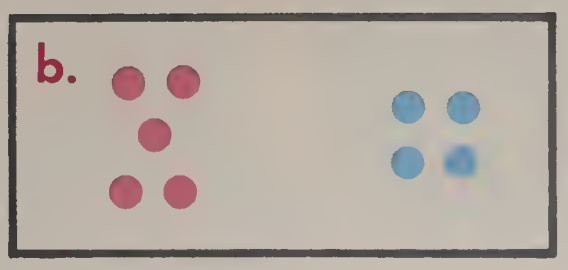
More about Sets of A. and S. Facts

Related A. and S. facts; inverses

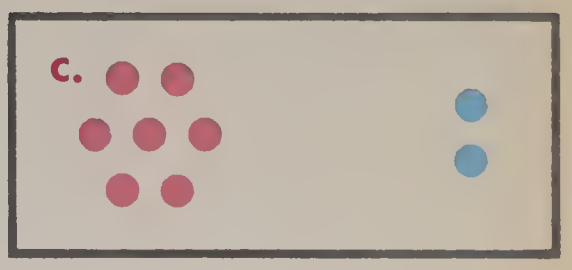
1. For each picture, write about the parts. Then show the set of A. and S. facts.



9 ; 6 and 3



___ ; ___ and ___



___ ; ___ and ___

2. Finish these to show A. facts and S. facts:

a. 9 + ___ = 9 . . . . . 9 − ___ = 9

b. 8 + ___ = 9 . . . . . 9 − ___ = 8

c. 7 + ___ = 9 . . . . . 9 − ___ = 7

d. 6 + ___ = 9 . . . . . 9 − ___ = 6

e. 5 + ___ = 9 . . . . . 9 − ___ = 5

f. 4 + ___ = 9 . . . . . 9 − ___ = 4

g. 3 + ___ = 9 . . . . . 9 − ___ = 3

h. 2 + ___ = 9 . . . . . 9 − ___ = 2

i. 1 + ___ = 9 . . . . . 9 − ___ = 1

j. 0 + ___ = 9 . . . . . 9 − ___ = 0

Finding How Many Are Gone

Using subtraction to find number for subset removed

1. a.

b.

A set of girls were playing. Some went away. Others stayed.

a. ___ girls in all. b. ___ girls in the part that stayed.

Find the number of girls in the part gone. $5 - 3 = \square$

2.

6 dogs were playing. Some ran away. Only ___ dogs stayed.

Find the number of dogs in the part gone. $6 - 4 = \square$

3.

There were 7 socks in all.

Now there are only ___ socks.

Find the number of socks gone.

7 - 5 = _____

4.

There were 5 flowers in all.

Now there are only ___ flowers.

Find the number gone.

_____

More about Finding How Many Are Gone

Using subtraction to find number for subset removed

1.

There were 5 sandwiches.

Now there are only ___ sandwiches.

Find the number gone.

5 − 3 = ___

2.

There were 7 cakes.

Now there are only ___ cakes.

Find the number gone.

7 − ___ = ___

3.

There were 6 in all.

Now there are only ___.

Find the number gone.

___ − ___ = ___

4.

There were 7 in all.

Now there are only ___.

Find the number gone.

___ − ___ = ___

5.

There were 7 in all.

Now there are only ___.

Find the number gone.

___ − ___ = ___

6.

There were 8 in all.

Now there are only ___.

Find the number gone.

___ − ___ = ___

Using Addition and Subtraction

Problem-solving; equalities and inequalities

Write your work.

1. In one picture, there were 4 black horses and 2 white horses. Find how many horses there were in all.

_____ ___ horses

2. Some of the 4 black horses ran away. One black horse was left. How many black horses ran away?

_____ ___ black horses

3. At one time, Nan saw 4 horses, 3 cows, and 1 dog. How many animals did Nan see in all?

_____ ___ animals

4. In an animal picture, there were 8 dogs. Two of them ran away. How many dogs were left then?

_____ ___ dogs

5. In an Indian picture there were 3 girls and 5 boys. How many Indian children in all were in that picture?

_____ ___ Indian children

6. Tom saw some of the 8 children go into a tepee. Then 2 children were left. How many children went into the tepee?

_____ ___ children

7. In each ring, write = or G for is greater than or L for is less than.

a. $2 + 6 \bigcirc 4 + 4$

b. $8 - 4 \bigcirc 2 + 3$

c. $1 + 7 \bigcirc 5 + 2$

d. $8 - 1 \bigcirc 3 + 4$

e. $7 - 4 \bigcirc 8 - 3$

f. $3 + 5 \bigcirc 8 - 0$

g. $7 - 3 \bigcirc 6 - 6$

h. $5 - 4 \bigcirc 0 + 1$

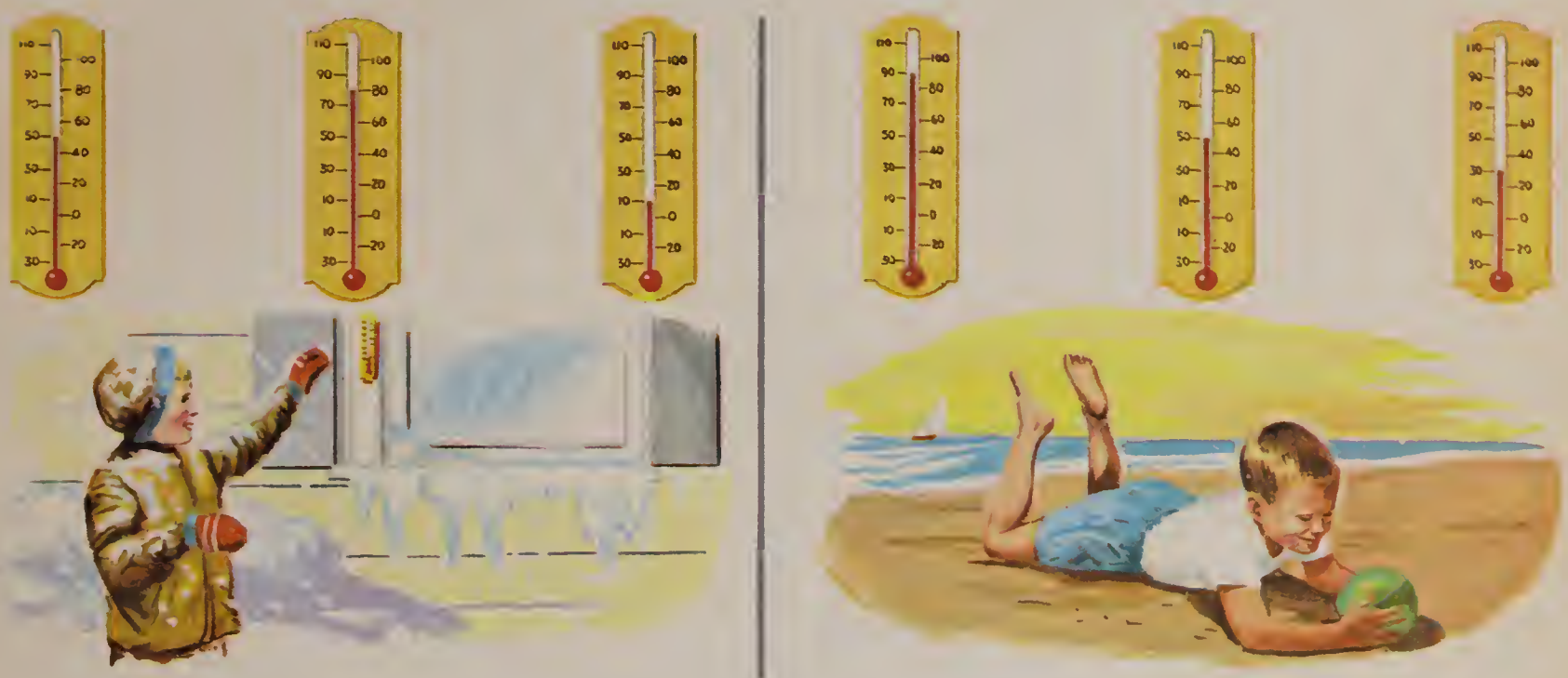
8. Are $7 - 5$ and $5 - 7$ names for the same number? Yes No

Try These!

For 1–4, listen to what your teacher says and asks. Draw rings to show your answers.

1. a. doll	**b.** bear	**c.** cent	**d.** cup
tepee	bug	plate	truck
horse	fish	cow	cat

2.



3. a. bicycle	**b.** dog	**4. a.** sandwich	**b.** dress
chair	man	house	bubble
Mother	baby	nickel	cup

5. Some things weigh about 1 pound. Draw rings to show pictures of things that weigh about 1 pound.

Do You Remember?

1. Show the set of A. and S. facts.

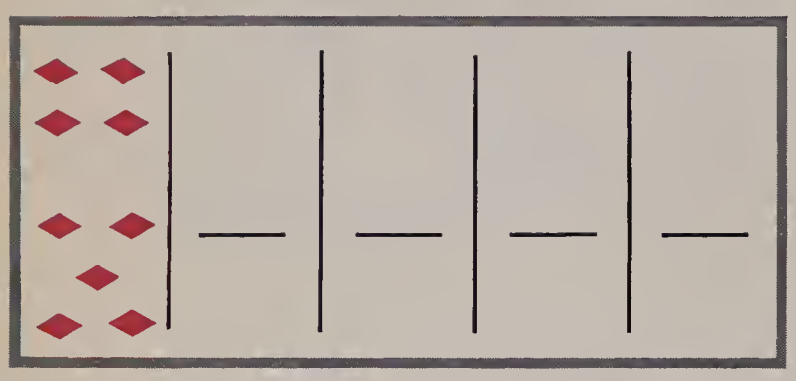
___ + ___ = ___

___ + ___ = ___

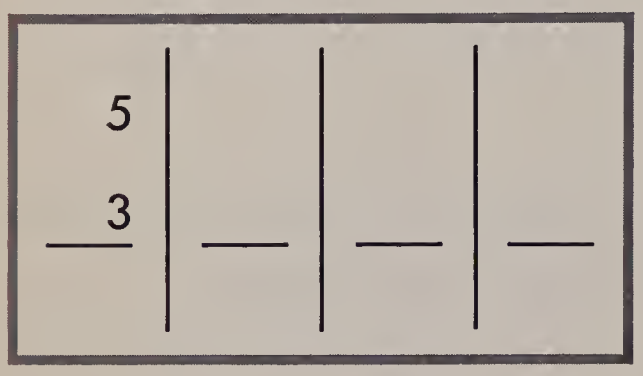
___ − ___ = ___

___ − ___ = ___

2. Show the set of A. and S. facts.



3. Finish to show the set of facts.



4. Put X on each part showing one half.

5. One name for the number nine is 9. Another name is 6 + ___.

6. Count and finish.

a. 20 25 30 ___ ___ ___ 50

b. 8 10 12 ___ ___ ___ 20

7. Finish this:

58 ___ tens and ___ ones

8. Write = or ≠ in the ring.

5 + 2 ◯ 10 − 2

9. Write the answers.

6 + 2 = ☐ 8 − 3 = ☐

7 − 4 = ☐ 9 + 1 = ☐

5 + 3 − 3 = ☐

10. Nan saw 8 apples on a tree. After a big wind, only 6 were left. How many apples came down in the wind?

_____ ___ apples

11. Ken had 3 apples and Lois had 4. How many apples did Ken and Lois have in all?

_____ ___ apples

Working with Addition Facts

Using the Commutative Property of Addition

1. In each box, draw more X's to make a set of 9 X's. Then show the pair of A. facts.

a.

X X X
X X
X

6 + _____

_____

b.

X X
X
X X

_____

_____

c.

X X
X X
X X
X

_____

_____

d.

X X
X X X
X X

_____

_____

2. Show each sum. Then show the other A. fact of the pair.

a. 1 + 8 = ☐

_____

b. 3 + 6 = ☐

_____

c. 5 + 3 = ☐

_____

d. 4 + 5 = ☐

_____

e. 2 + 7 = ☐

_____

f. 4 + 3 = ☐

_____

3. Add. Draw a ring around each answer that shows an even number.

4	6	1	2	7	2	3	8	2¢
5	2	8	4	2	5	6	1	4¢
								3¢
5	2	2	6	2	3	4	5	
3	7	3	3	6	5	4	4	

Using Doubles in Addition

Deriving one addition fact from another

Some addition doubles: $1 + 1 = 2$ $2 + 2 = 4$ $3 + 3 = 6$ $4 + 4 = 8$

1. Use addition doubles to help with other addition facts.

a. $1 + 1 = 2$, so $1 + 2 = \square$.

b. $2 + 2 = 4$, so $2 + 3 = \square$.

c. $3 + 3 = 6$, so $3 + 4 = \square$.

d. $4 + 4 = 8$, so $4 + 5 = \square$.

2. Use addition doubles to help here, too.

a. $1 + 1 = \square$, so $2 + 1 = \bigcirc$.

b. $2 + 2 = \square$, so $3 + 2 = \bigcirc$.

c. $3 + 3 = \square$, so $4 + 3 = \bigcirc$.

d. $4 + 4 = \square$, so $5 + 4 = \bigcirc$.

e. $2 + 2 = 4$, so $2 + 1 = \square$.

f. $3 + 3 = 6$, so $3 + 2 = \square$.

g. $4 + 4 = 8$, so $4 + 3 = \square$.

h. $2 + 2 = 4$, so $1 + 2 = \square$.

i. $3 + 3 = 6$, so $2 + 3 = \square$.

j. $4 + 4 = 8$, so $3 + 4 = \square$.

3. Show the sums. Use addition doubles to help you.

a. $2 + 2 = \triangle$, so $2 + 3 = \square$, and $3 + 2 = \square$.

b. $4 + 4 = \triangle$, so $4 + 5 = \square$, and $5 + 4 = \square$.

c. $3 + 3 = \triangle$, so $3 + 4 = \square$, and $4 + 3 = \square$.

4. Use addition doubles to help you here, too. Show the sums.

a. $2 + 2 = 4$, so $2 + 1 = \square$, and $1 + 2 = \square$.

b. $3 + 3 = 6$, so $3 + 2 = \square$, and $2 + 3 = \square$.

c. $4 + 4 = 8$, so $4 + 3 = \square$, and $3 + 4 = \square$.

Counting by 3's

Sequences; addition and subtraction practice

1. Each clover has ___ leaves. Count all the leaves by 3's.

3 ___ 9 ___ 15 18 21 ___

In all, there are ___ leaves.

2. Four clovers have how many leaves? Count by 3's.

3 ___ ___ ___ Four clovers have ___ leaves.

3. How many leaves in all are there on

a. 6 clovers? ___ **b.** 3 clovers? ___ **c.** 5 clovers? ___

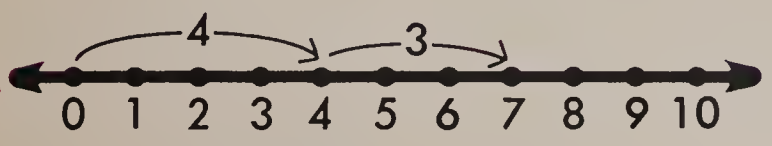
4. Count by 3's. Write what is missing.

a. 12 ___ **b.** 18 ___ **c.** 24 ___ **d.** 27 ___

e. ___ 6 **f.** ___ 24 **g.** ___ 18 **h.** ___ 9

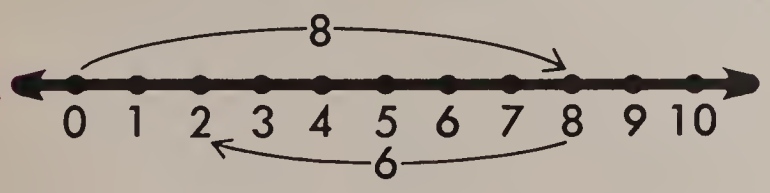
● What addition or subtraction fact is shown?

1.

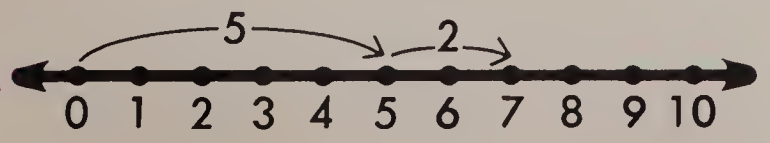


4 + 3 = 7

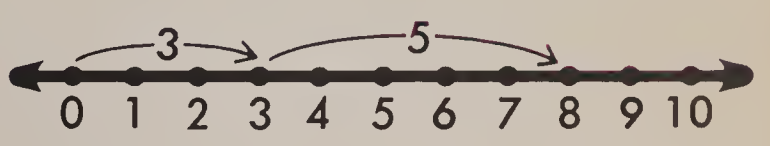
2.



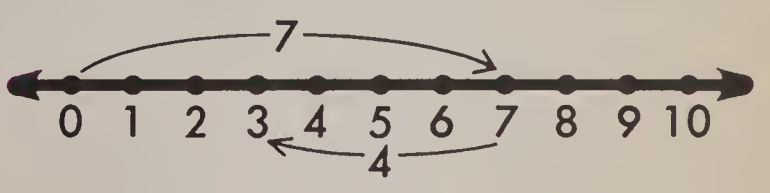
3.



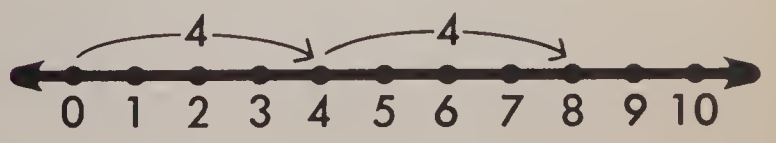
4.



5.



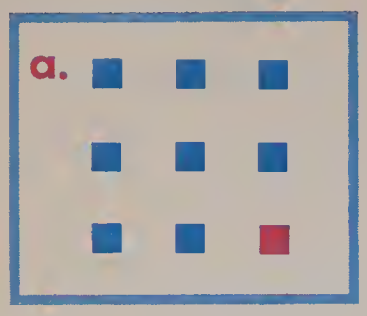
6.



Working with Subtraction Facts

1. For each picture, show the pair of S. facts.

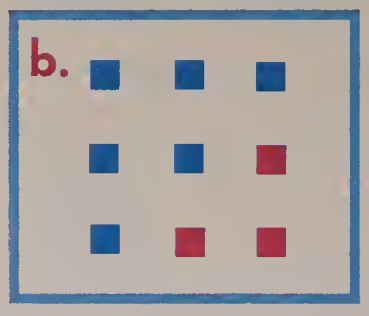
a.



9 - ___ = ___

___ = ___

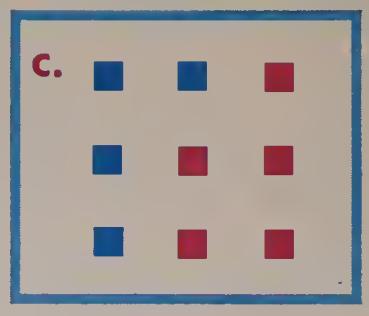
b.



___ = ___

___ = ___

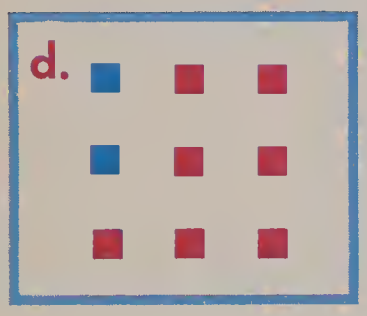
c.



___ = ___

___ = ___

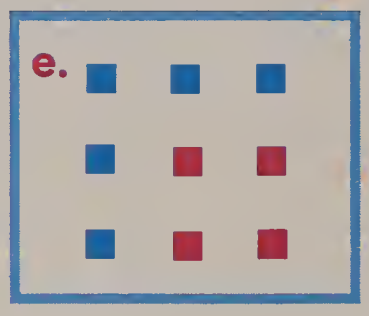
d.



___ = ___

___ = ___

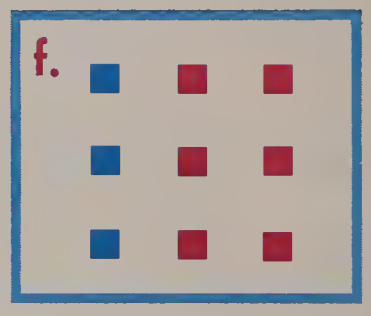
e.



___ = ___

___ = ___

f.



___ = ___

___ = ___

2. Write each answer. Then show the other S. fact of the pair.

a. 9 − 7 = ☐ ___ = ___

b. 9 − 3 = ☐ ___ = ___

c. 9 − 4 = ☐ ___ = ___

d. 8 − 5 = ☐ ___ = ___

3. Subtract. Draw a ring around each answer showing an odd number.

9	8	7	9	8	9	8	9	7
3	5	5	4	4	8	2	5	2
7	9	8	9	7	9	8	6	9
4	2	6	6	3	1	3	4	7

Using Doubles in Subtraction

Deriving one subtraction fact from another; review

Some subtraction doubles: $2-1=1$ $4-2=2$ $6-3=3$ $8-4=4$

1. Use subtraction doubles to help with other S. facts. Finish the work.

a. $4-2=2$,
so $3-2=____$.

b. $6-3=3$,
so $5-3=____$.

c. $8-4=4$,
so $7-4=____$.

2. Use subtraction doubles to help with these S. facts, too. Finish the work.

a. $4-2=2$,
so $5-2=\square$.

b. $8-4=4$,
so $9-4=\square$.

c. $6-3=3$,
so $7-3=\square$.

3. Try these, too:

a. $4-2=2$,
so $4-3=\square$.

b. $8-4=4$,
so $8-5=\square$.

c. $6-3=3$,
so $6-4=\square$.

d. $6-3=3$,
so $6-2=\square$.

e. $8-4=4$,
so $8-3=\square$.

f. $4-2=2$,
so $4-1=\square$.

Try These!

a. $3+\square=8$

b. $\square+4=8$

c. $\square+8=8$

d. $7-\square=3$

e. $8-\square=5$

f. $\square-4=4$

g. $7+\square=9$

h. $6+\square=8$

i. $\square+2=7$

j. $8-\square=6$

k. $7-\square=2$

l. $\square-6=0$

m. $4+\square=7$

n. $\square+3=8$

o. $\square+7=8$

p. $9-\square=2$

q. $8-\square=3$

r. $\square-0=7$

How Many More?

Using subtraction to compare the numbers of two sets

1. ___ in row **A**. ___ in row **B**.

Row **A** has how many more?

Make marks to show pairs and count the other blocks. ___

Or, you may find how many more blocks in row **A** than in row **B** by using the numbers for the rows.

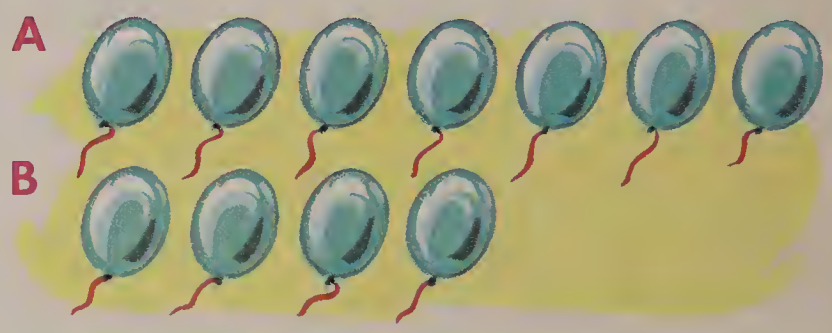
How much greater is 5 than 3? From 5 subtract 3 to find out. $5 - 3 = \square$

2. How many more? Make marks and count to find out. ___

There are ___ in row **A** and ___ in row **B**. How much greater is 6 than 2?

$6 - \square = \bigcirc$

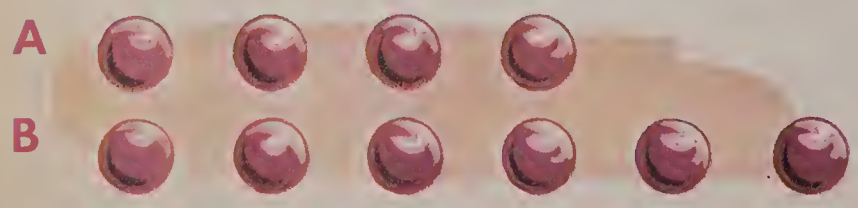
3. How many more? Make marks and count to find out. ___



There are ___ in row **A** and ___ in row **B**. How much greater is 7 than 4?

$7 - \triangle = \bigcirc$

4. Make marks to find how many more. Then show the subtraction fact.



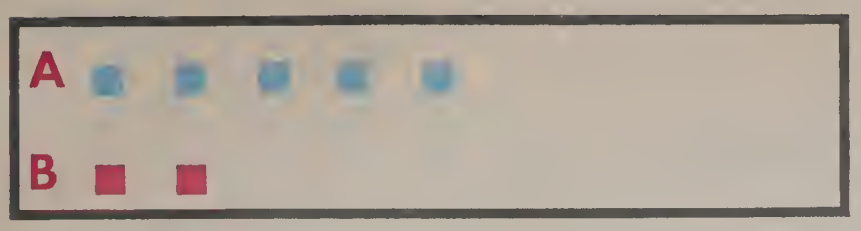
Row **B** has ___ more than row **A**.

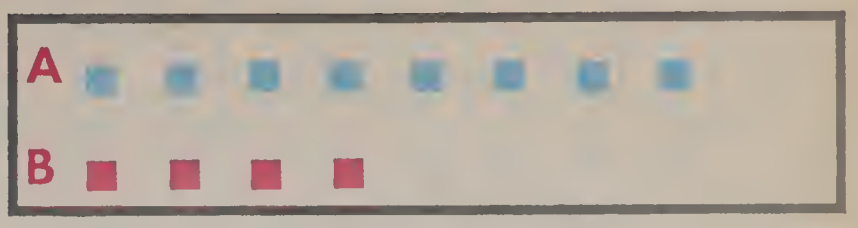
$6 - \bigcirc = \square$

Finding How Many More

Using subtraction to compare the numbers of two sets

Find how many more in one set than in the other set.



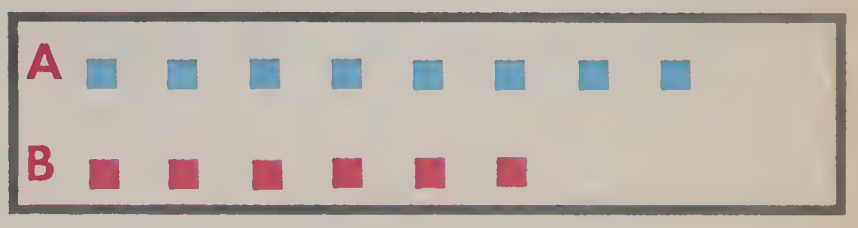


1. ____ in set **A.** ____ in set **B.**

$5 - 2 = \square$

2. ____ in set **A.** ____ in set **B.**

$8 - \bigcirc = \bigcirc$



3. ____ in set **A.** ____ in set **B.**

$7 - \square = \bigcirc$

4. ____ in set **A.** ____ in set **B.**

$8 - \bigcirc = \square$

Subtract to find how many more in one set than in the other.

5. 7 birds 6 birds

$7 - \quad = \quad$

6. 6 trucks 5 trucks

7. 8 dolls 3 dolls

8. 6 cars 2 cars

● Subtract. Write the answers.

1.

4	5	6	4	5	6	7	8	8¢
2	4	4	3	3	3	2	6	3¢

2.

7	8	5	7	8	7	8	8	6¢
5	2	2	3	4	6	6	5	2¢

Addition or Subtraction?

Problem-solving; addition and subtraction practice

1. Draw a ring around addition or subtraction.

- To find the number for the part of a set left, I use addition. subtraction.
- To find the number for the part gone from a set, I use addition. subtraction.
- To find the number for two or more sets together, I use addition. subtraction.
- To find how many more in one set than in another, I use addition. subtraction.

2. Listen to the problem your teacher reads. Then write A. or S. to show what to use.

a. ____ b. ____ c. ____ d. ____

3. Listen to the problem. Then write your work.

a. _____ b. _____

- Add.

1.	2	7	3	4	2	8	3	1	6
	7	1	5	5	6	1	6	7	2
2.	5	3	6	4	5	7	5	6	1
	4	4	3	4	3	2	2	1	8

- Subtract.

3.	9	8	8	9	9	8	9	8	9
	2	5	7	7	3	6	1	4	6
4.	7	8	9	7	8	8	9	8	9
	3	7	4	5	1	3	8	2	5

Names for Even Numbers and Odd Numbers

Two names for the same number

1. Match names for the same even number.

a.	9 − 7	7 − 1
b.	9 − 5	twelve
c.	12	6 + 2
d.	ten	2
e.	8	1 + 9
f.	8 − 2	8 − 4

2. Match names for the same odd number.

a.	1 + 2	7 − 2
b.	eleven	9 − 6
c.	9 − 4	6 + 3
d.	7 + 0	8 − 7
e.	1	seven
f.	4 + 5	11

Learning More about the Numbers 11 through 99

Introducing expanded notation

Finish the work.

		Number Name
a.	13 birds: 1 set of 10 and 3 more	10 + 3
b.	34 crayons: ___ sets of 10 and ___ more	___ + ___
c.	96 apples: ___ sets of 10 and ___ more	___ + ___
d.	75 cars: ___ sets of 10 and ___ more	___ + ___
e.	17 dogs: ___ set of 10 and ___ more	___ + ___
f.	63 eggs: ___ sets of 10 and ___ more	___ + ___
g.	49 children: ___ sets of 10 and ___ more	___ + ___
h.	82 fish: ___ sets of 10 and ___ more	___ + ___
i.	28 trucks: ___ sets of 10 and ___ more	___ + ___
j.	56 marbles: ___ sets of 10 and ___ more	___ + ___
k.	69 animals: ___ sets of 10 and ___ more	___ + ___

Adding Ones to Tens

1. Eva is buying the lollipops for her party. In all, she is buying one set of 10 red lollipops and 7 more.

Find how many lollipops Eva is buying in all.

Expanded notation

1 set of 10 and 7 more

10 + 7 = 17

2. Finish the work.

a. 1 set of 10 and 4 more — 10 + 4 = ☐

b. 1 set of 10 and 9 more — ___ + ___ = ☐

c. 4 sets of 10 and 2 more — ___ + ___ = ☐

d. 7 sets of 10 and 8 more — ___ + ___ = ☐

3. Add. Finish the work.

a. 10 + 6 = ☐	**e.** 90 + 1 = ☐	**i.** 80 + 5 = ☐
b. 10 + 1 = ☐	**f.** 40 + 7 = ☐	**j.** 50 + 3 = ☐
c. 10 + 8 = ☐	**g.** 20 + 2 = ☐	**k.** 60 + 8 = ☐
d. 30 + 5 = ☐	**h.** 70 + 4 = ☐	**l.** 10 + 9 = ☐

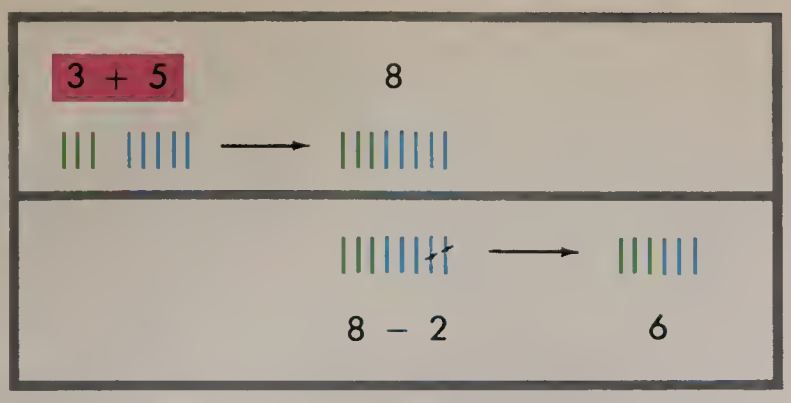
● Write the answers. Look for + and −.

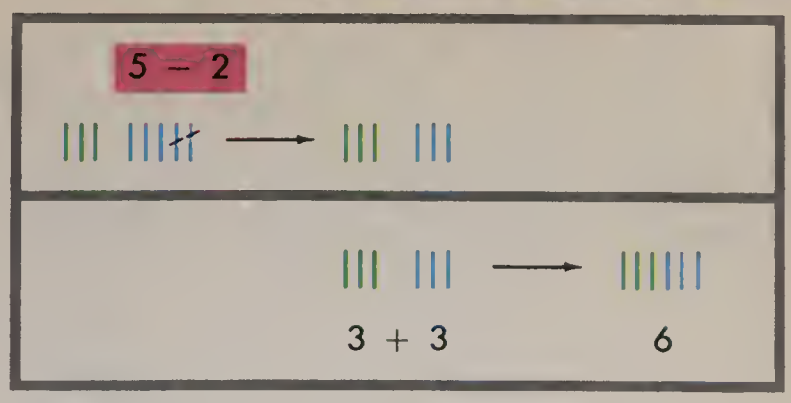
1. 6 + 1 = ___	3 + 5 = ___	9 − 6 = ___	8 − 3 = ___
2. 6 + 3 = ___	8 − 6 = ___	5 + 3 = ___	2 + 7 = ___
3. 4 + 4 = ___	9 − 5 = ___	0 + 7 = ___	9 − 4 = ___
4. 9 − 2 = ___	8 − 7 = ___	7 + 2 = ___	10 − 1 = ___

Adding and Subtracting

Using two operations in one example; A. and S. practice

1.





3 + 5 − 2 = ? Think as in **a** or as in **b**.

a. 3 + 5 − 2 = ___ − 2

8 − 2 = ___

b. 3 + 5 − 2 = 3 + ___

3 + 3 = ___

Do 3 + 5 − 2 and 3 + 5 − 2 have the same answers? Yes No

2. 1 + 6 − 4 = ? Think as in **a** or as in **b**.

a. 1 + 6 − 4 = ___ − 4

7 − 4 = ___

b. 1 + 6 − 4 = 1 + ___

1 + 2 = ___

3. Can you get the answer?

a. 6 + 2 − 5 = ? Yes No

b. 6 + 2 − 5 = ? Yes No

4. Write the answers.

a. 2 + 5 − 4 = ___

b. 3 + 4 − 2 = ___

c. 1 + 7 − 4 = ___

d. 1 + 5 − 2 = ___

e. 2 + 6 − 5 = ___

f. 5 + 3 − 3 = ___

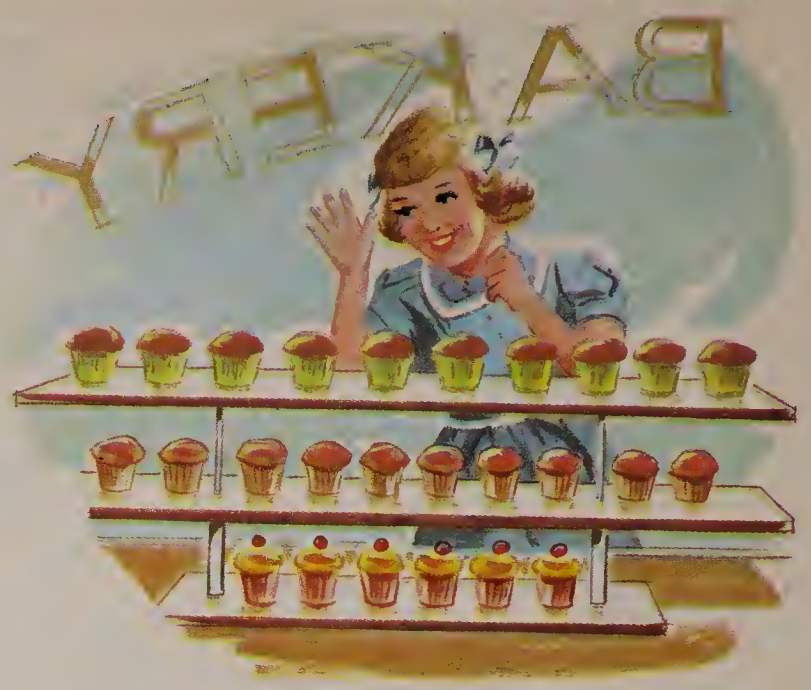
● Write the answers. Look for + and −.

1.	5 + 3 = ___	9 − 5 = ___	8 − 3 = ___	3 + 6 = ___
2.	8 − 7 = ___	7 + 2 = ___	6 + 2 = ___	8 − 5 = ___
3.	9 − 4 = ___	7 + 0 = ___	4 + 5 = ___	9 − 6 = ___
4.	9 − 2 = ___	6 + 3 = ___	2 + 7 = ___	4 + 4 = ___

Subtracting from Tens and Ones

The unknown addend a multiple of 10

1. There are 26 cupcakes in the bakery window. Ann wants to buy 6 of them. Find how many cupcakes will be left in the bakery window.



$26 - 6 = ?$

Think, $26 - 6 = 20 + 6 - 6$

$26 - 6 = 20 + 6 - 6$,

so $26 - 6 =$ ____.

Use this ϕ-picture for 26. Cover 6 to see if your answer is correct.

ϕ ϕ || || ||

2. $18 - 8 = ?$

Think, $18 - 8 = 10 + 8 - 8$

$18 - 8 = 10 + 8 - 8$,

so $18 - 8 =$ ____.

Is your answer correct? Use a ϕ-picture.

3. $47 - 7 = ?$

Think, $47 - 7 = 40 + 7 - 7$

$47 - 7 = 40 + 7 - 7$,

so $47 - 7 =$ ____.

Is your answer correct? Use a ϕ-picture.

4. Subtract. Write answers for these:

a. $14 - 4 =$ ☐	**b.** $56 - 6 =$ ☐	**c.** $38 - 8 =$ ☐	**d.** $82 - 2 =$ ☐
e. $41 - 1 =$ ☐	**f.** $13 - 3 =$ ☐	**g.** $25 - 5 =$ ☐	**h.** $69 - 9 =$ ☐

5. Now try these. Look for + and −.

a. $78 - 8 =$ ☐	**b.** $90 + 7 =$ ☐	**c.** $36 - 6 =$ ☐	**d.** $40 + 9 =$ ☐
e. $20 + 5 =$ ☐	**f.** $53 - 3 =$ ☐	**g.** $99 - 9 =$ ☐	**h.** $80 + 4 =$ ☐

Using Addition and Subtraction

Problem-solving; addition and subtraction practice

Draw a ring. Then write the work.

1. There are 5 girls, 1 man, and 3 boys skating. Find how many in all are skating.

A. S.

_____ ___ people

2. There are 5 girls and 3 boys. That is how many more girls than boys?

A. S.

_____ ___ girls

3. There were 8 children skating. After a time, only 5 children were skating. Find how many of the 8 children were not skating.

A. S.

_____ ___ children

4. Ann fell 7 times. Dick fell 3 times. Find how many more times Ann fell than Dick did.

A. S.

_____ ___ times

Write the answers.

5.	4 − 4 = ___	2 + 7 = ___	8 − 2 = ___	9 − 3 = ___
6.	9 − 7 = ___	8 − 4 = ___	5 + 4 = ___	6 + 2 = ___
7.	8 + 1 = ___	9 − 6 = ___	8 − 5 = ___	3 + 6 = ___
8.	9 − 8 = ___	4 + 0 = ___	9 − 4 = ___	5 + 3 = ___
9.	4 + 5 = ___	8 − 3 = ___	2 + 6 = ___	9 − 2 = ___
10.	8 − 6 = ___	6 + 3 = ___	7 + 2 = ___	9 − 5 = ___

Do You Know?

1. One part of a set of 9 is 6. The other part is ____.

2. Two names for the number nine are 9 and 2 + _____.

3. There are ____ A. and S. facts using 9, 5, and 4. Show them.

4. Count by 3's.

3 6 9 ____ ____ ____ 21

5. Write = or G or L.

a. 6 + 2 ◯ 10 − 1

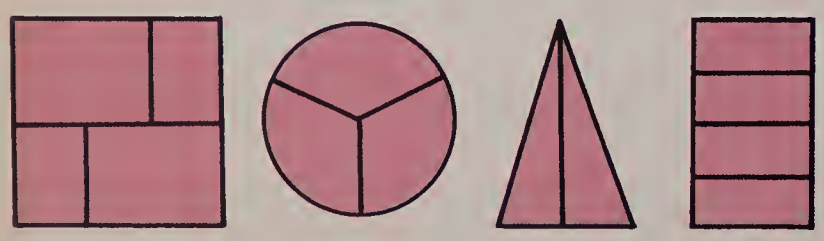
b. 8 − 3 ◯ 7 − 2

c. 7 + 2 ◯ 5 + 3

6. Write the answers.

a. 90 + 7 = ☐ **b.** 53 − 3 = ☐

7. Put X on each part showing one half.



8. Finish these:

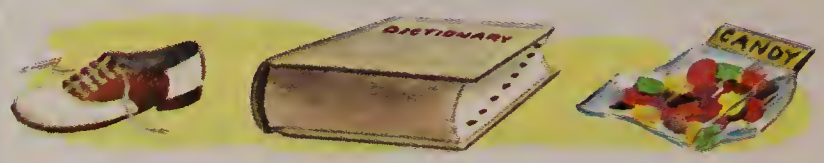
a. 4 + 4 = 8, so 5 + 4 = ☐

b. 8 − 4 = 4, so 7 − 4 = ☐

c. 3¢ + 4¢ + 2¢ = ☐¢

d. 7 + 2 − 2 = ☐

9. Draw a ring.



10. 7 + 2 = ____ 9 − 4 = ____

9 − 6 = ____ 0 + 8 = ____

11. Walter spent 9¢. Carl spent 5¢. Walter spent how many cents more than Carl?

_____ ____ cents

12. Betty spent 3¢. Doris spent 6¢. How much in all was that?

_____ ____ cents

13. David had 8¢, and then he could find only 4¢. How much had David lost?

_____ ____ cents

14. Try these:

a. 4 + ☐ = 9 **b.** 8 − ☐ = 3

Pairs of Parts of a Set of 10

Separating a set into two subsets

A

1. ___ pins in all. ___ pins are standing. ___ pin is down.

10; 9 and ___ 10; ___ and ___

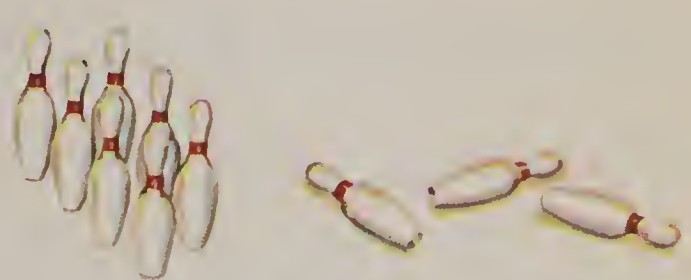
B

2. ___ pins in all

___ are standing. ___ are down.

10; 8 and ___ 10; ___ and ___

C



3. ___ pins in all

___ are standing. ___ are down.

10; 7 and ___ 10; ___ and ___

D

4. ___ pins in all

10; 6 and ___ 10; ___ and ___

E

5. ___ pins in all

10; 5 and ___

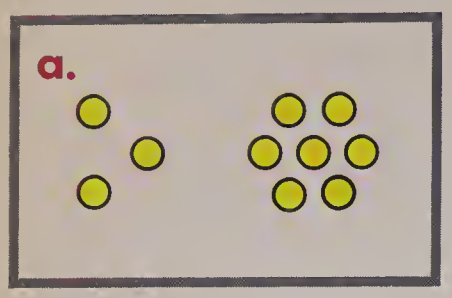
6. Pictures **A**, **B**, **C**, **D**, and **E** show parts of sets of 10. Which shows

3 and 7? C 4 and 6? ___ 2 and 8? ___ 5 and 5? ___

Writing about Pairs of Parts of a Set of 10

Separating a set into two subsets

1. Write about these parts of a set of 10:

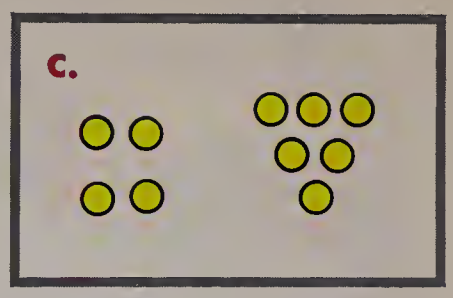


10; ___ and ___

10; ___ and ___

10; ___ and ___

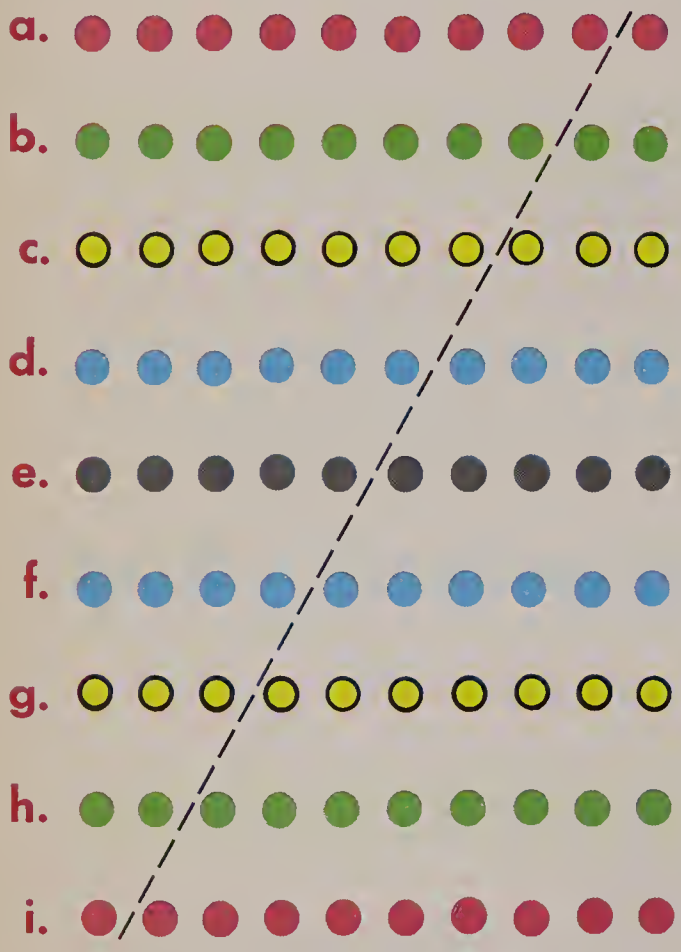
10; ___ and ___



10; ___ and ___

10; ___ and ___

2. Finish writing about these parts of sets of 10:



a. 10; 9 and 1 — 10; 1 and 9

b. 10; ___ and ___ — 10; ___ and ___

c. 10; ___ and ___ — 10; ___ and ___

d. 10; ___ and ___ — 10; ___ and ___

e. 10; ___ and ___ — 10; ___ and ___

f. 10; ___ and ___ — 10; ___ and ___

g. 10; ___ and ___ — 10; ___ and ___

h. 10; ___ and ___ — 10; ___ and ___

i. 10; ___ and ___ — 10; ___ and ___

3. Finish this.

Number for one part of a set of 10 things	4	2	7	9	5	1
Number for the other part of a set of 10 things						

The Set of A. and S. Facts Using 10, 9, and 1

Related A. and S. facts

1. ___ reindeer in all. ___ are near. ___ is not near.

a. Finish to show the pair of A. facts. 9 + ___ = ___ ___

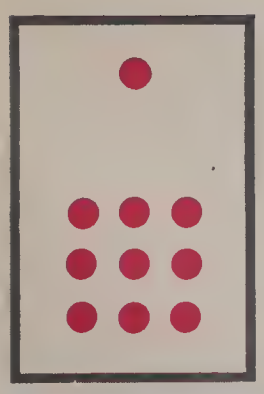
b. Finish to show the pair of S. facts. 10 − ___ = ___ ___

c. Your work shows the set of A. and S. facts using 10, 9, and ___.

2. ___ reindeer in all. ___ is eating. ___ are not eating.

Write + or − in each ring to show the set of A. and S. facts using 10, 9, and 1.

1 ◯ 9 = 10	9 ◯ 1 = 10
10 ◯ 9 = 1	10 ◯ 1 = 9



3. a. There are ___ dots in the set.

10; ___ and ___

b. Show the set of A. and S. facts.

___ ___ ___ ___

Show the set of A. and S. facts using 9, 6, and 3.

___ ___ ___ ___

The Set of A. and S. Facts Using 10, 8, and 2

Related A. and S. facts

1. ___ dogs in all. ___ in part A. ___ in part B.

a. Finish to show the pair of A. facts. 8 + ___ = ___ ___

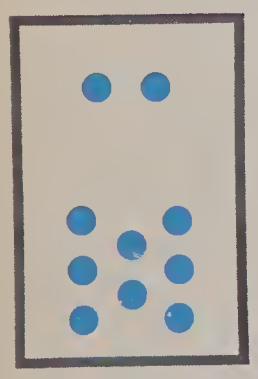
b. Finish to show the pair of S. facts. 10 − ___ = ___ ___

c. Your work shows the set of A. and S. facts using ___, 8, and ___.

2. ___ sleds in all. ___ sleds in part A. ___ in part B.

Write + or − in each ring to show the set of A. and S. facts using 10, 8, and 2.

2 ◯ 8 = 10	8 ◯ 2 = 10
10 ◯ 8 = 2	10 ◯ 2 = 8



3. a. There are ___ dots in the set.

___; ___ and ___

b. Show the set of A. and S. facts.

___ ___ ___ ___

Show the set of A. and S. facts using 10, 9, and 1.

___ ___ ___ ___

The Set of A. and S. Facts Using 10, 7, and 3

Related A. and S. facts

1. ___ seals in all. ___ seals in part A. ___ in part B.

a. Finish to show the pair of A. facts. 7 + ___ = ___ ___

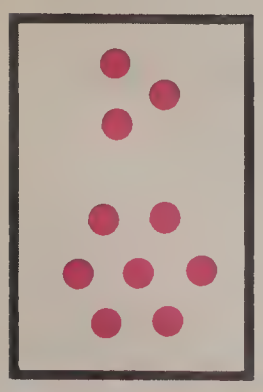
b. Finish to show the pair of S. facts. 10 − ___ = ___ ___

c. Your work shows the set of A. and S. facts using ___, 7, and ___.

2. ___ ice blocks in all. ___ are big blocks. ___ are little blocks.

Write + or − in each ring to show the set of A. and S. facts using 10, 7, and 3.

3 ◯ 7 = 10	7 ◯ 3 = 10
10 ◯ 7 = 3	10 ◯ 3 = 7



3. a. There are ___ dots in the set.

___; ___ and ___

b. Show the set of A. and S. facts.

___ ___ ___ ___

Show the set of A. and S. facts using 10, 8, and 2.

___ ___ ___ ___

The Set of A. and S. Facts Using 10, 6, and 4

Related A. and S. facts

1. ___ men in all. ___ men are not in boats. ___ are in boats.

a. Finish to show the pair of A. facts. 6 + ___ = ___ ___

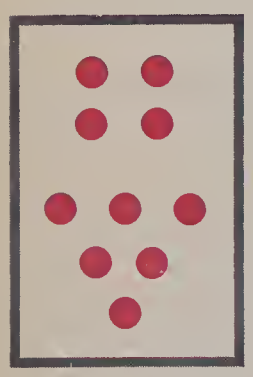
b. Finish to show the pair of S. facts. 10 − ___ = ___ ___

c. Your work shows the set of A. and S. facts using ___, 6, and ___.

2. ___ men in all. ___ have no paddles. ___ have paddles.

Write + or − in each ring to show the set of A. and S. facts using 10, 6, and 4.

4 ◯ 6 = 10	6 ◯ 4 = 10
10 ◯ 6 = 4	10 ◯ 4 = 6



3. a. There are ___ dots in the set.

___; ___ and ___

b. Show the set of A. and S. facts.

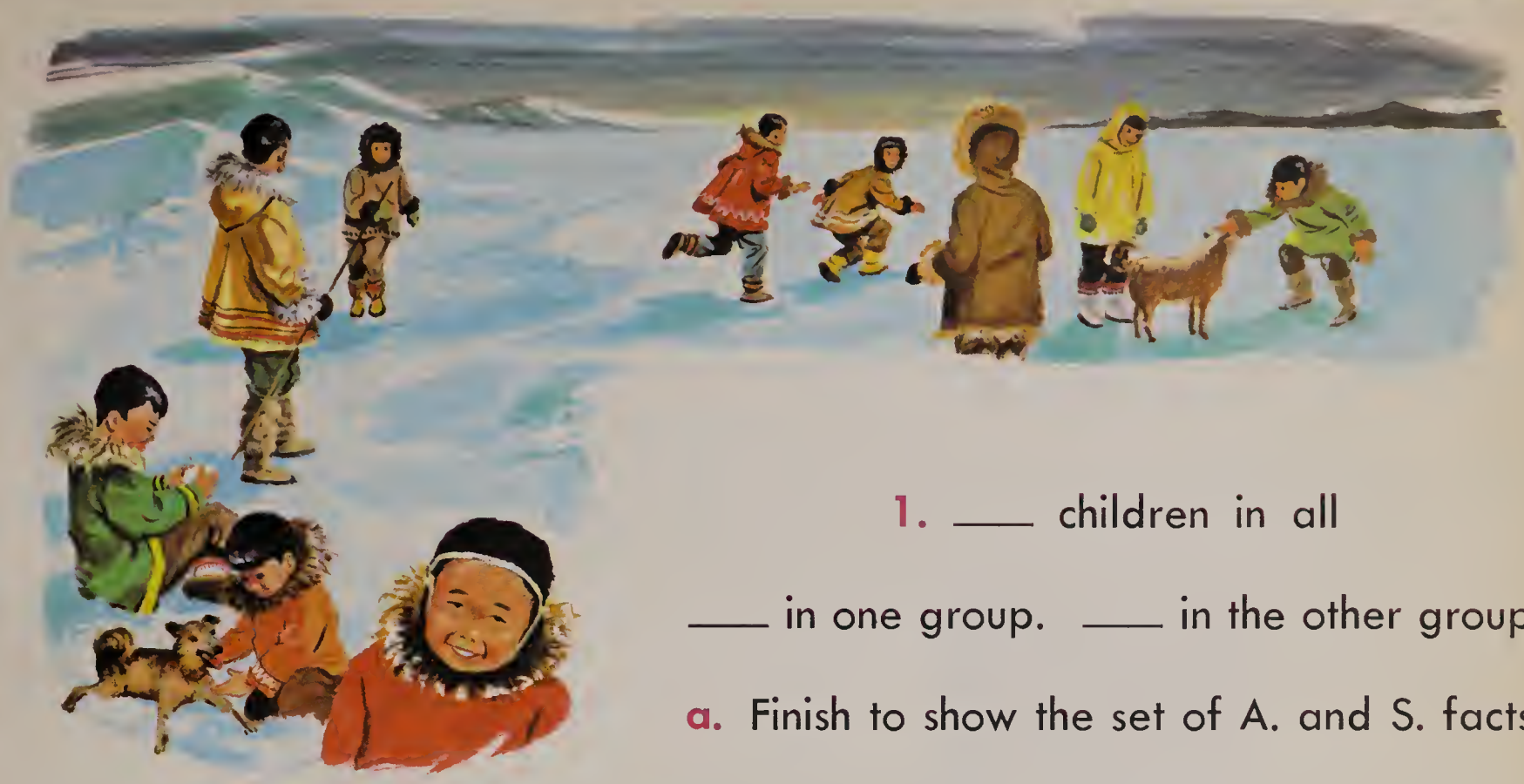
___ ___ ___ ___

Show the set of A. and S. facts using 10, 7, and 3.

___ ___ ___ ___

The Set of A. and S. Facts Using 10, 5, and 5

Related A. and S. facts; A. and S. practice; number names



1. ____ children in all

____ in one group. ____ in the other group.

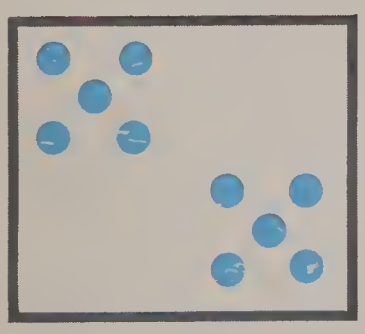
a. Finish to show the set of A. and S. facts.

5 + ____ = ____ 10 − ____ = ____

b. Your work shows the set of A. and S. facts using ____, 5, and ____.

2. a. There are ____ dots in all.

b. Write + or − in each ring to show the set of A. and S. facts.



5 ◯ 5 = 10

10 ◯ 5 = 5

3. Show the set of A. and S. facts using 10, 6, and 4.

____ ____ ____ ____

● A number name is shown in the [ ]. Draw a ring around each other name in the box for the same number.

9 − 2	6 + 3	4 + 4	7 − 1
2 + 5	five	3 + 5	6 + 3
8 − 1	9 − 1	9 − 7	1 + 5
5 + 4	1 + 8	nine	9 − 3
seven	8 − 2	6 + 2	8 − 5
4 + 3	2 + 7	9 − 4	six

More about Sets of A. and S. Facts

Related A. and S. facts; inverses

1. For each picture, write about the parts. Then show the sets of A. and S. facts.

a.

b.

c.

10; 8 and ____

____; ____ and ____

____; ____ and ____

2. Finish these to show A. facts and S. facts:

a. 10 + ____ = 10 · · · · · · 10 − ____ = 10

b. 9 + ____ = 10 · · · · · · 10 − ____ = 9

c. 8 + ____ = 10 · · · · · · 10 − ____ = 8

d. 7 + ____ = 10 · · · · · · 10 − ____ = 7

e. 6 + ____ = 10 · · · · · · 10 − ____ = 6

f. 5 + ____ = 10 · · · · · · 10 − ____ = 5

g. 4 + ____ = 10 · · · · · · 10 − ____ = 4

h. 3 + ____ = 10 · · · · · · 10 − ____ = 3

i. 2 + ____ = 10 · · · · · · 10 − ____ = 2

j. 1 + ____ = 10 · · · · · · 10 − ____ = 1

k. 0 + ____ = 10 · · · · · · 10 − ____ = 0

3. Are 9 − 6 and 6 − 9 names for the same number? Yes No

Fourths and One Fourth of a Whole Thing

Identifying fourths of single objects

1.

How many pieces of cake? ____

Are all the same size? _____

Each piece is one fourth of the cake.

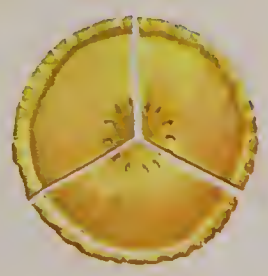
2.

How many pieces of pie? ____

Are all the same size? _____

Each piece is not one fourth of the pie.

3.



How many pieces of pie? ____

Are all the same size? Yes No

Is each piece one fourth? Yes No

4.

How many pieces? _____

Are all the same size? _____

Is each piece one fourth? Yes No

5.

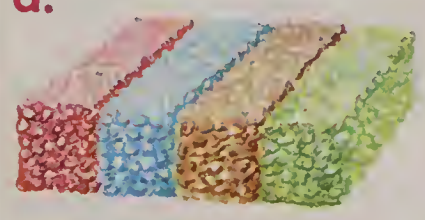
How many pieces? ____

Are all the same size? _____

Is each piece one fourth? Yes No

6. Put X on each part showing one fourth.

a.

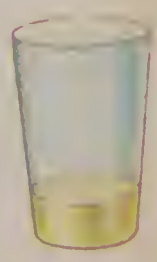


b.

c.

d.

7. Draw rings only for things that show halves.



Using Addition and Subtraction

Problem-solving; equalities and inequalities

1. Write your work.

a. Nine girls and 4 boys had a movie party. How many more girls than boys were at the party?

_____ ___ girls

b. Each row at the movies has 9 seats. Five of the girls took seats in an empty row. In that row, how many empty seats were left?

_____ ___ seats

c. In another row, there were 6 children. Then 2 more came. There were how many in the row then?

_____ ___ children

d. In another row, were 2 boys, 3 girls, and then 3 more boys. How many children were in that row?

_____ ___ children

e. Ann spent 5¢ for an apple and 8¢ for candy. Ann spent how much more for candy than for the apple?

_____ ___ cents

f. Tom spent 5¢ for an orange and 4¢ for some candy. How much were these things together?

_____ ___ cents

2. In each ring, write $=$ or $\neq$.

a. $2 + 3 \bigcirc 9 - 4$

b. $8 - 1 \bigcirc 3 + 5$

c. $9 - 3 \bigcirc 2 + 3$

d. $0 + 8 \bigcirc 9 - 1$

e. $4 + 5 \bigcirc 6 + 2$

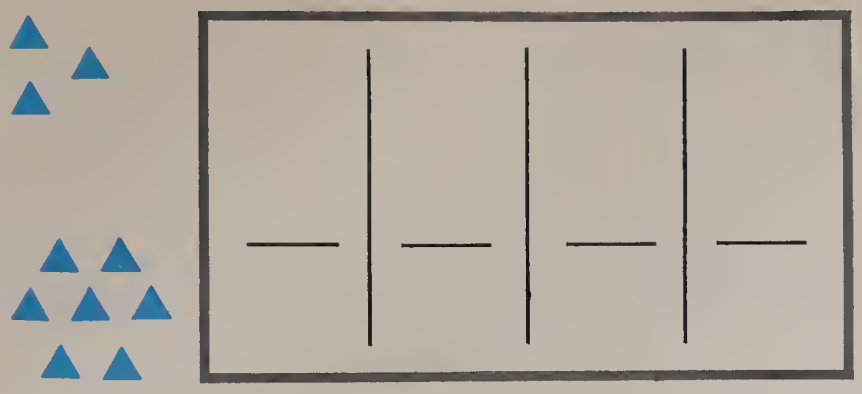
f. $7 - 0 \bigcirc 2 + 4$

g. $6 + 3 \bigcirc 1 + 8$

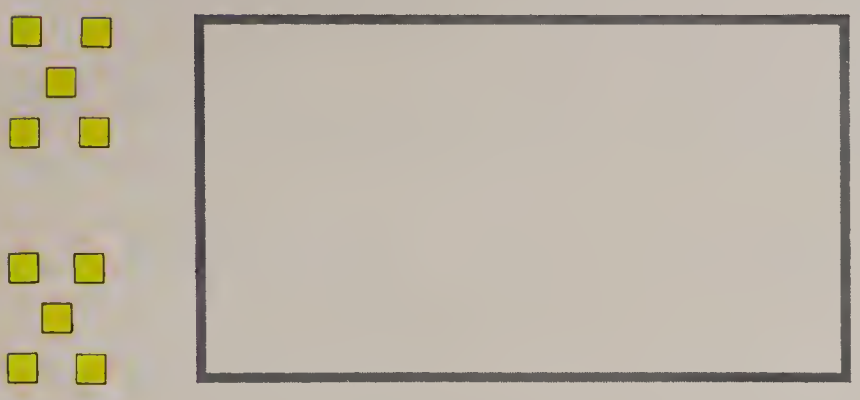
h. $9 - 5 \bigcirc 7 - 2$

Do You Remember?

1. Show the set of A. and S. facts.



2. Show the set of A. and S. facts.



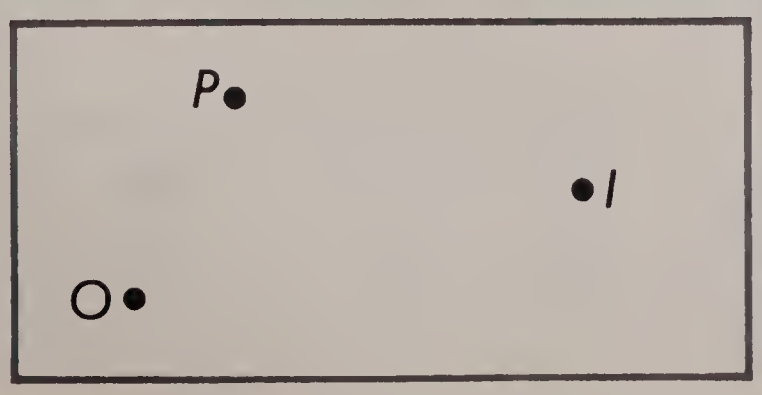
3. One part of a set of 10 is 4.

The other part is ____.

4. 1 quarter ____¢

5. Put H on each part showing one half. Put F for each fourth.

6.



7. Count by 3's.

15 ____ ____ ____ ____ ____

8. $90 + 7 = \square$ $36 - 6 = \square$

9. Finish these:

a. $4 + 4 = 8$, so $4 + 5 = \square$.

b. $8 - 4 = 4$, so $9 - 4 = \square$.

10. $7 + 2 =$ ____ $8 - 5 =$ ____

$9 - 3 =$ ____ $4 + 4 =$ ____

$1 + 8 =$ ____ $9 - 4 =$ ____

$8 - 2 =$ ____ $4 + 0 =$ ____

$2¢ + 3¢ + 4¢ =$ ____¢

11. Susan had 8 dimes and Betty had 5 dimes. Susan had how many more dimes than Betty?

_____ ____ dimes

I found the answer by using

addition. subtraction.

12. Fred had 3 toy cars and Tom had 6 toy cars. How many toy cars did the boys have together?

_____ ____ cars

I found the answer by using

addition. subtraction.

Working with Addition Facts

Using the Commutative Property of Addition

1. In each box, draw more X's to make a set of 10 in all. Then show the pair of A. facts.

a.

X X

X X

_____ _____

b.

X X X
X X X
X X X

_____ _____

c.

X

X

X

_____ _____

d.

X X
X X
X X
X X

_____ _____

2. Finish to show an A. fact. Then show the other A. fact of the pair.

a. $7 + 3 = \square$ _____

b. $4 + 6 = \square$ _____

c. $2 + 8 = \square$ _____

d. $1 + 9 = \square$ _____

3. Is there another A. fact to go with $5 + 5 = 10$? Yes No

4. Add. Show the sums.

5	2	4	3	9	6	3	5¢	3¢
4	8	6	5	1	2	7	5¢	4¢
								3¢

1	3	0	7	3	6	2	8¢
9	6	5	3	4	4	7	2¢

Helps for Addition

Deriving one A. fact from another; writing fractions

Use these helps for pairs of A. facts. Show the sums.

1. $2 + 2 = 4$,
so $2 + 3 =$ ☐
and $3 + 2 =$ ☐.

2. $4 + 4 = 8$,
so $4 + 5 =$ ☐
and $5 + 4 =$ ☐.

3. $4 + 5 = 9$,
so $4 + 6 =$ ☐
and $6 + 4 =$ ☐.

4. $3 + 3 = 6$,
so $4 + 3 =$ ☐
and $3 + 4 =$ ☐.

5. $2 + 6 = 8$,
so $3 + 6 =$ ☐
and $6 + 3 =$ ☐.

6. $6 + 3 = 9$,
so $7 + 3 =$ ☐
and $3 + 7 =$ ☐.

7. $3 + 3 = 6$,
so $3 + 2 =$ ☐
and $2 + 3 =$ ☐.

8. $5 + 3 = 8$,
so $5 + 2 =$ ☐
and $2 + 5 =$ ☐.

9. $4 + 3 = 7$,
so $4 + 2 =$ ☐
and $2 + 4 =$ ☐.

10. $4 + 4 = 8$,
so $3 + 4 =$ ☐
and $4 + 3 =$ ☐.

11. $3 + 4 = 7$,
so $2 + 4 =$ ☐
and $4 + 2 =$ ☐.

12. $6 + 3 = 9$,
so $5 + 3 =$ ☐
and $3 + 5 =$ ☐.

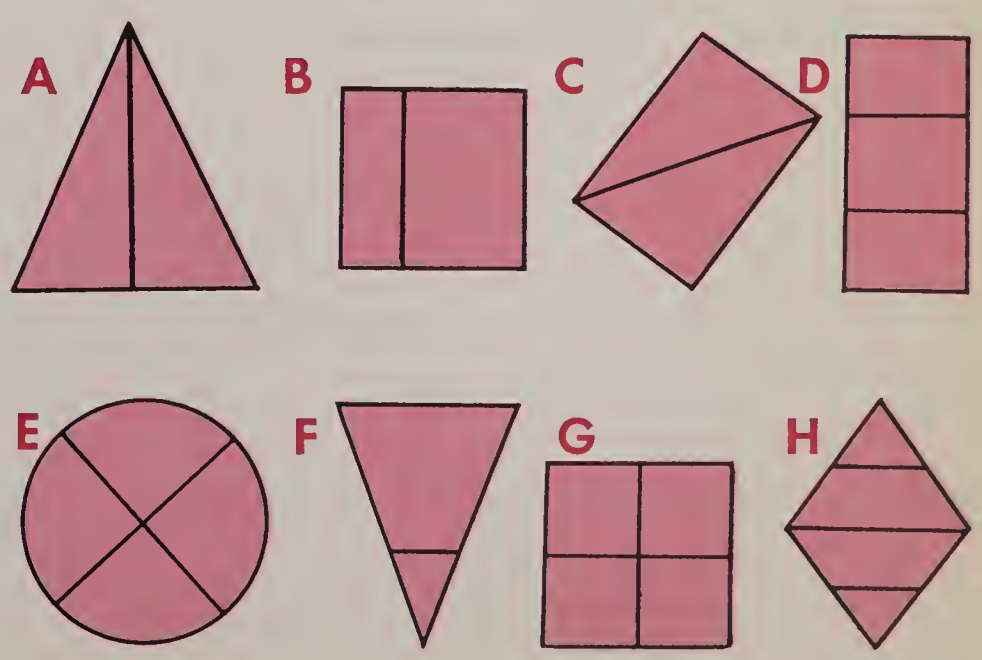
The Fractions $\frac{1}{2}$ and $\frac{1}{4}$

1. For the number <u>one half</u>, you write this fraction → $\frac{1}{2}$.

Write $\frac{1}{2}$ on each half shown.

2. For the number <u>one fourth</u>, you write this fraction → $\frac{1}{4}$.

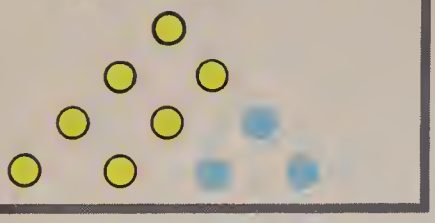
Write $\frac{1}{4}$ on each fourth shown.



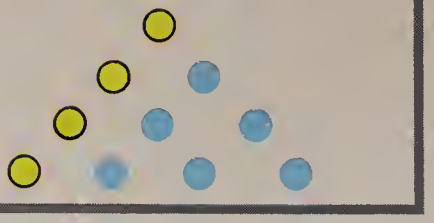
Working with Subtraction Facts

1. For each picture, show the pair of S. facts.

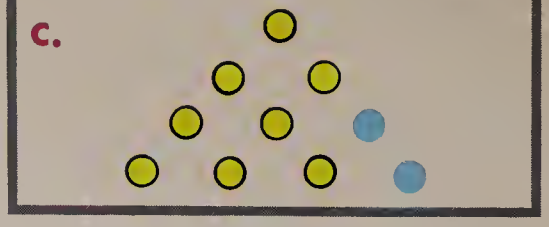
a.



b.



c.



_____ _____ _____

_____ _____ _____

2. Finish to show a S. fact. Then show the other S. fact of the pair.

a. $10 - 2 = \square$ **b.** $10 - 4 = \square$ **c.** $8 - 6 = \square$ **d.** $9 - 4 = \square$

_____ _____ _____ _____

e. $10 - 7 = \square$ **f.** $9 - 3 = \square$ **g.** $10 - 1 = \square$ **h.** $9 - 2 = \square$

_____ _____ _____ _____

3. Is there another S. fact to go with $10 - 5 = 5$? Yes No

4. Subtract. Write the answers.

9	10	9	8	10	9	10	10¢
1	3	4	8	5	3	9	2¢
10	9	10	9	10	9	10	10¢
7	2	4	7	6	6	1	8¢

Helps for Subtraction

Deriving one S. fact from another; linear measurements

Can you use these helps for S. facts? Write the answers.

1. $6 - 3 = 3$,
so $5 - 3 = \square$.

2. $8 - 4 = 4$,
so $7 - 4 = \square$.

3. $10 - 5 = 5$,
so $9 - 5 = \square$.

4. $6 - 2 = 4$,
so $5 - 2 = \square$.

5. $9 - 3 = 6$,
so $8 - 3 = \square$.

6. $10 - 6 = 4$,
so $9 - 6 = \square$.

Now try to write the answers for these:

7. $8 - 4 = 4$,
so $9 - 4 = \square$.

8. $4 - 2 = 2$,
so $5 - 2 = \square$.

9. $6 - 3 = 3$,
so $7 - 3 = \square$.

10. $7 - 3 = 4$,
so $8 - 3 = \square$.

11. $8 - 5 = 3$,
so $9 - 5 = \square$.

12. $9 - 2 = 7$,
so $10 - 2 = \square$.

Measuring

1. Move your finger from 0 to 1 on the picture.

You have moved your finger about ___ inch.

2. The part 0 to 1 is the same size as the part

1 to 2, the part 2 to ___, the part 3 to ___,

the part 4 to ___, and the part 5 to ___.

Each part is about ___ inch long.

3. From 0 to 5 is about ___ inches.

4. From 0 to 4 is about ___ inches.

5. From 0 to 3 is about ___ inches.

6. From 4 to 6 is about ___ inches.

Adding Ones to Tens and Ones

Operating first on numbers of ones shown

1. Finish the work for each of these. The pictures may help you.

a. 32 + 5 = ?

32 + 5 = 30 + 2 + 5

32 + 5 = 30 + 7

32 + 5 = ____

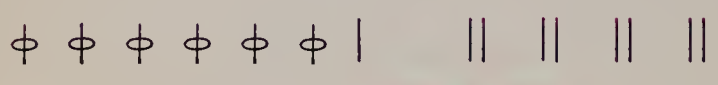
b. 46 + 2 = ?

46 + 2 = 40 + 6 + 2

46 + 2 = 40 + ____

46 + 2 = ____

c. 61 + 8 = ?



61 + 8 = 60 + 1 + 8

61 + 8 = ____ + ____

61 + 8 = ____

d. 25 + 3 = ?

25 + 3 = 20 + ____ + ____

25 + 3 = ____ + ____

25 + 3 = ____

2. Draw pictures of ϕ's and |'s to help with these:

a. 32 + 7 = ?

32 + 7 = 30 + 2 + ____

32 + 7 = 30 + ____

32 + 7 = ____

b. 54 + 3 = ?

54 + 3 = 50 + 4 + ____

54 + 3 = 50 + ____

54 + 3 = ____

3. Find sums for these. Do not use pictures.

a. 67 + 2 = ?

b. 43 + 5 = ?

More about Adding Ones to Tens and Ones

Practice in operating first on numbers of ones shown

Find the sums. Show your work.

1. 82 + 6 = ?

2. 24 + 5 = ?

3. 16 + 3 = ?

4. 73 + 4 = ?

5. 34 + 4 = ?

6. 93 + 6 = ?

7. 45 + 4 = ?

8. 61 + 7 = ?

Subtracting Ones from Tens and Ones

Operating first on numbers of ones shown

1. Finish the work for each of these. The pictures may help you.

a. 28 − 5 = ?

28 − 5 = 20 + 8 − 5

28 − 5 = 20 + 3

28 − 5 = ____

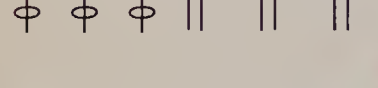
b. 57 − 3 = ?

57 − 3 = 50 + 7 − 3

57 − 3 = 50 + ____

57 − 3 = ____

c. 36 − 4 = ?



36 − 4 = 30 + 6 − 4

36 − 4 = ____ + ____

36 − 4 = ____

d. 49 − 7 = ?

49 − 7 = 40 + ____ − ____

49 − 7 = ____ + ____

49 − 7 = ____

2. Draw pictures of ⏀'s and |'s to help with these:

a. 58 − 3 = ?

58 − 3 = 50 + 8 − ____

58 − 3 = 50 + ____

58 − 3 = ____

b. 49 − 6 = ?

49 − 6 = 40 + 9 − ____

49 − 6 = 40 + ____

49 − 6 = ____

3. Find answers for these. Do not use pictures.

a. 78 − 6 = ?

b. 87 − 2 = ?

More about Subtracting Ones from Tens and Ones

Practice in operating first on numbers of ones shown

Find the answers. Show your work.

1. 47 − 5 = ?

2. 68 − 7 = ?

3. 86 − 2 = ?

4. 29 − 5 = ?

5. 18 − 2 = ?

6. 75 − 3 = ?

7. 39 − 3 = ?

8. 97 − 4 = ?

Using Addition and Subtraction

Problem-solving; addition and subtraction practice

Write your work.

1. Mother has washed 10 glasses. Sue has wiped 6 of them. How many glasses are left to wipe?

_____ ___ glasses

2. Sue has wiped 4 big cups, 2 not so big, and 3 little ones. Sue has wiped how many cups in all?

_____ ___ cups

3. There were 9 little plates to wash. Now there are only 3. How many of the little plates has Mother washed?

_____ ___ plates

4. Sue has 9 pans and 7 covers to wipe. There are how many more pans than covers for Sue to wipe?

_____ ___ pans

Write the answers.

5.	3 + 7 = ___	8 − 6 = ___	5 + 0 = ___	10 − 8 = ___
6.	10 − 2 = ___	2 + 8 = ___	4 + 5 = ___	6 + 4 = ___
7.	9 − 7 = ___	10 − 3 = ___	1 + 9 = ___	3 + 6 = ___
8.	9 + 1 = ___	5 + 4 = ___	10 − 4 = ___	10 − 5 = ___
9.	8 + 2 = ___	5 + 5 = ___	10 − 7 = ___	10 − 1 = ___
10.	10 − 6 = ___	9 − 0 = ___	7 + 3 = ___	9 − 3 = ___
11.	2 + 7 = ___	4 + 6 = ___	10 − 9 = ___	3 + 5 = ___
12.	3 + 4 + 3 =	3 + 1 + 6 = ___	4¢ + 1¢ + 5¢ = ___¢	

Do You Know?

1. Show the set of A. and S. facts using 10, 8, and 2.

2. What is the other part?

One part of a set of 10 is 7.

The other part is ____.

3. One name for the number ten is 10. Another name is 5 + ____.

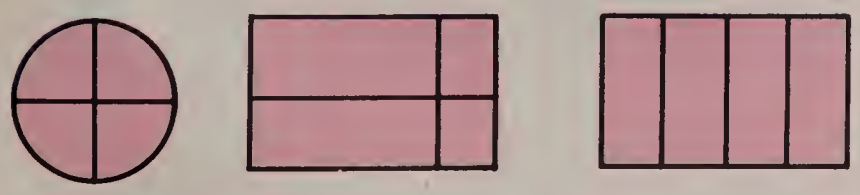
4. Write the answers.

a. 6 + 3 = 9, so 6 + 2 = ☐.

b. 8 − 3 = 5, so 9 − 3 = ☐.

5. a. Write $\frac{1}{2}$ on each half shown.

b. Write $\frac{1}{4}$ on each fourth shown.



6. 10 − 7 = ____ 4 + 6 = ____

8 − 8 = ____ 10 − 8 = ____

3¢ + 4¢ + 3¢ = ____¢

7. Find the sums.

a. 32 + 5 = ?

b. 45 + 4 = ?

8. Find the answers.

a. 56 − 2 = ?

b. 78 − 5 = ?

9. Joe had 9 school papers. He lost some, so he had only 4. How many papers were lost?

_____ ____ papers

I found the answer by using

addition. subtraction.

10. Betty took some money to the store. She spent 3¢ and had 6¢ left. How much did she have at first?

_____ ____ cents

I found the answer by using

addition. subtraction.

11. Each part is about 1 inch long. How many inches in all?

about ____ inches

Do You Know?

1. Finish to show a set of 4 facts.

$8 + 2 =$ _____ _____

_____ $-$ _____ $=$ _____ _____

2. One part of a set of 9 is 5.

The other part is ____.

3. Count by 3's.

18 21 ____ ____ ____

4. $5¢ + 3¢ = \square ¢$ $\quad 9 - 0 = \square$

$4¢ + 6¢ = \square ¢$ $\quad 10 - 3 = \square$

$30 + 6 = \square$ $\quad 85 - 5 = \square$

$5 + 3 + 2 = \square$

$7 + 3 - 3 = \square$

5. 76 ____ tens and ____ ones

6. Write $=$ or $\neq$ in the ring.

$7 + 2 \bigcirc 10 - 2$

7. Write G or L in the ring.

$9 - 2 \bigcirc 5 + 4$

8. Write your answers.

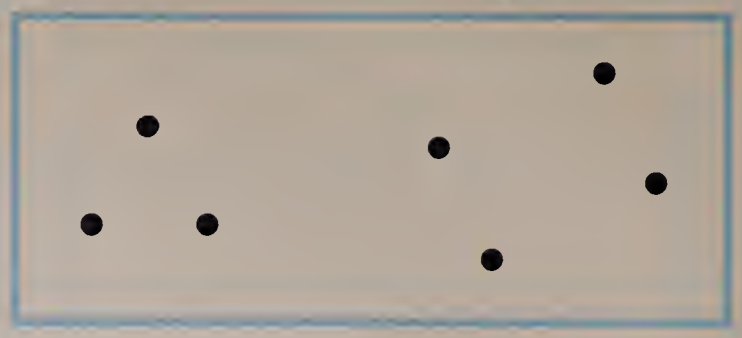
a.

half past ____

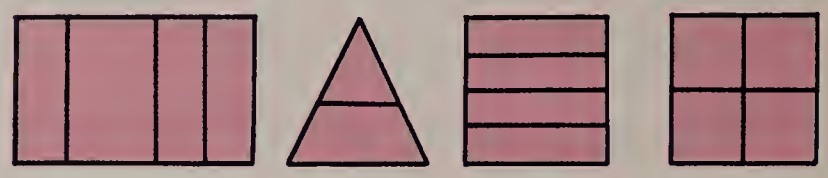
b.

____¢

9.



10. Make a big X below each picture that shows fourths.



11. Bill has 8 marbles. Jack has 3 marbles. Find how many more marbles Bill has than Jack.

_____ ____ marbles

12. Joe had 7 pieces of candy. He gave some to Tom and had 5 pieces left. How many pieces did he give to Tom?

_____ ____ pieces

13. Sue gave 4 pieces of paper to Tom and 3 pieces of paper to Jack. How many pieces of paper did Sue give away?

_____ ____ pieces

14. In problem 12, what did you use? Draw a ring.

addition subtraction

Pairs of Parts of a Set of 11

Separating a set into two subsets

1. ___ flower pots in all

___ are little flower pots. ___ are big flower pots.

11; ___ and ___ 11; ___ and ___

2. 11 flower pots in all. ___ have plants in them. ___ have no plants.

11; ___ and ___ 11; ___ and ___

3.

___ flower pots in all

11 ; ___ and ___

11 ; ___ and ___

4.

___ flower pots in all

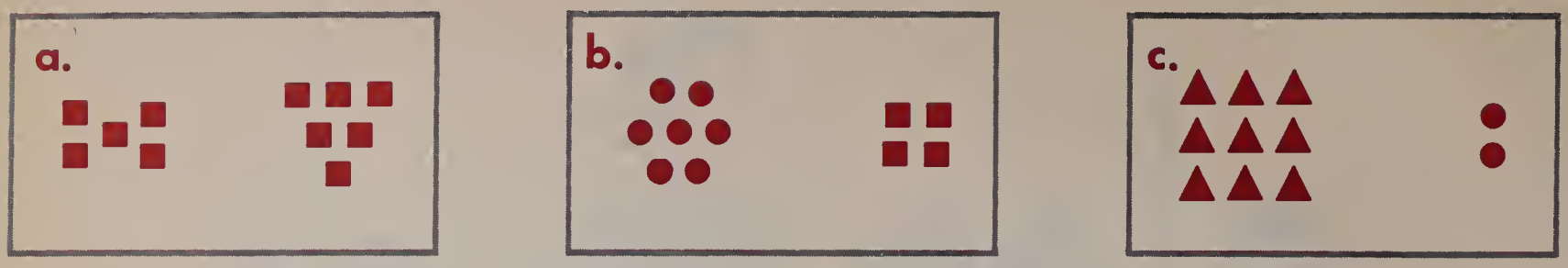
11 ; ___ and ___

11 ; ___ and ___

Writing about Pairs of Parts of a Set of 11

Separating a set into two subsets

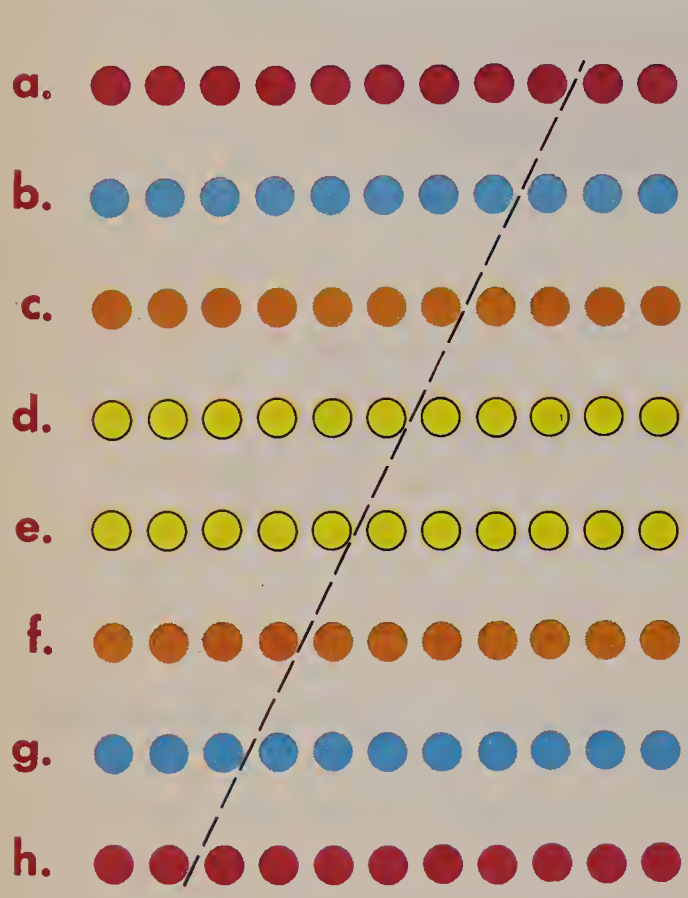
1. Write in two ways about these parts of a set of 11:



11; ___ and ___ 11; ___ and ___ 11; ___ and ___

11; ___ and ___ 11; ___ and ___ 11; ___ and ___

2. Finish writing about these sets of 11 and the parts shown:



a. 11; 9 and 2 11; 2 and 9

b. 11; ___ and ___ 11; ___ and ___

c. 11; ___ and ___ 11; ___ and ___

d. 11; ___ and ___ 11; ___ and ___

e. 11; ___ and ___ 11; ___ and ___

f. 11; ___ and ___ 11; ___ and ___

g. 11; ___ and ___ 11; ___ and ___

h. 11; ___ and ___ 11; ___ and ___

3. Finish the work.

Number for one part of a set of 11 things	2	8	5	9	7	3	6	4
Number for the other part of a set of 11 things	9		6			8		

Sets of A. and S. Facts Having Sum 11

Related A. and S. facts

1. ___ planes in all. ___ planes are big. ___ planes are little.

Show the set of A. and S. facts using 11, 8, and 3.

3 + ___ = ___ _____

11 − ___ = ___ _____

2.

___ chicks in all

___ are black. ___ are yellow.

Show the set of A. and S. facts using 11, 9, and 2.

2 + ___ = ___ _____

11 − ___ = ___ _____

3.

___ toy roosters in all

___ roosters are on the top shelf.

___ roosters are on the other shelf.

Show the set of A. and S. facts using 11, 6, and 5.

5 + ___ = ___ _____

11 − ___ = ___ _____

More about Sets of A. and S. Facts Having Sum 11

Related A. and S. facts

1.

___ toy cows in all

___ are standing. ___ are not standing.

Show the set of A. and S. facts using 11, 7, and 4.

4 + ___ = ___ _____

11 − ___ = ___ _____

2. Write about the parts. Then show the set of A. and S. facts.

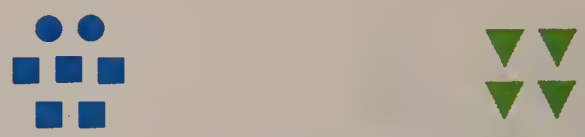
a.

___; ___ and ___

_____ _____

_____ _____

b.

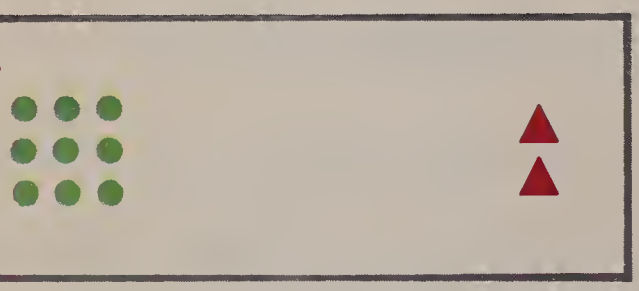


___; ___ and ___

_____ _____

_____ _____

c.

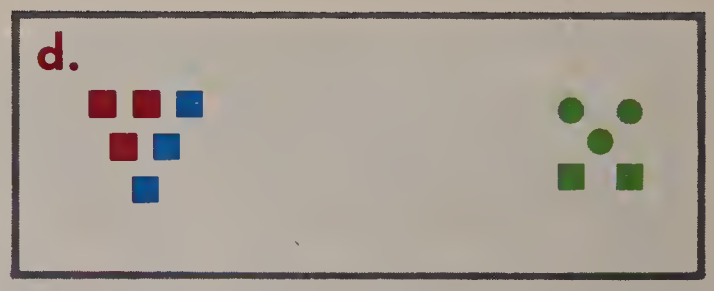


___; ___ and ___

_____ _____

_____ _____

d.



___; ___ and ___

_____ _____

_____ _____

Measurements in Pounds

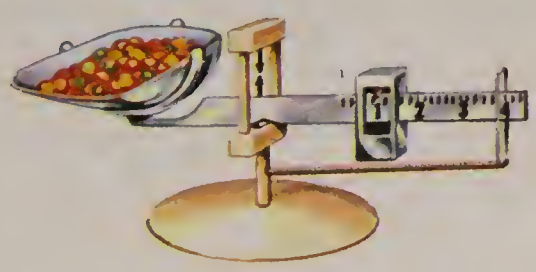
Weight measurements

We use scales for weighing things. We can find the number of pounds.

1. Ann weighs ____ pounds. How much do you weigh? ____ pounds

2. For each of the pictures below, what number of pounds is shown on the scale?

____ pounds



____ pound

____ pounds

3. Show by drawing rings the things we weigh on scales.

money turkeys oranges fish ice cream water candy

Using Addition and Subtraction

Problem-solving

Write your work.

1. Jack had 10 boards for a doghouse. He used 6 of the boards. Then how many boards were left?

_____ ____ boards

2. Jack's father took 10 nails in his hand. He used some of the nails and had 7 left in his hand. How many nails did he use?

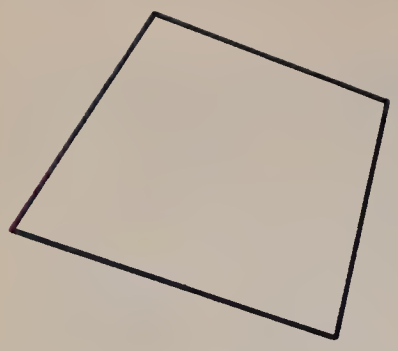
_____ ____ nails

3. Jack's dog ran after a ball 6 times for Jack and then 3 times for Jack's father. How many times did the dog run after the ball?

_____ ____ times

Simple Closed Paths

1.



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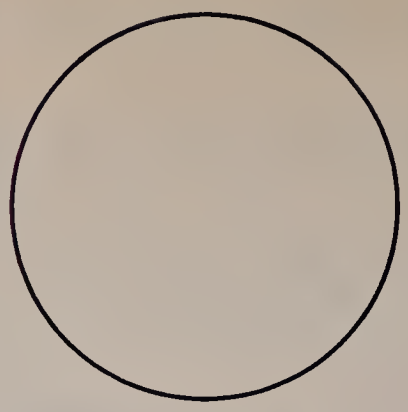

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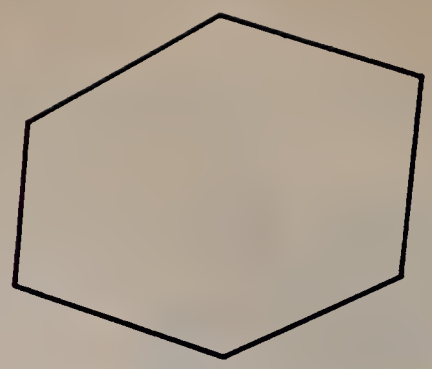

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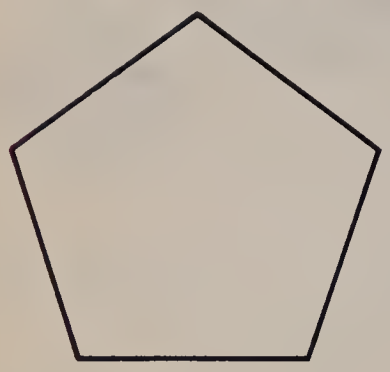

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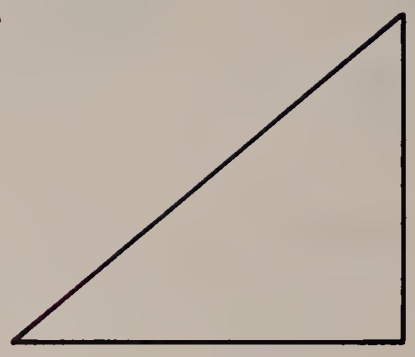
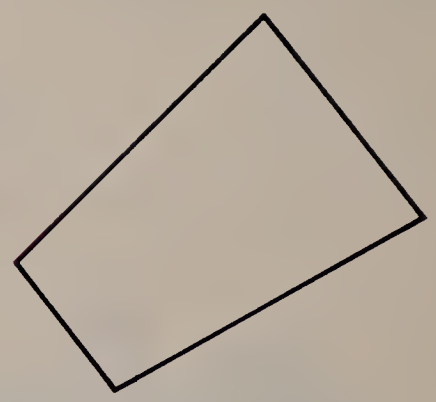


6.

7.

8.

9.



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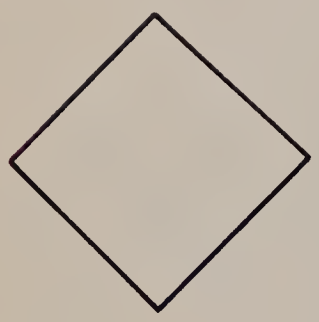
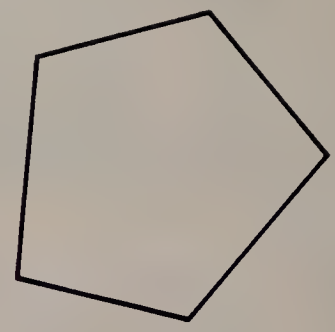


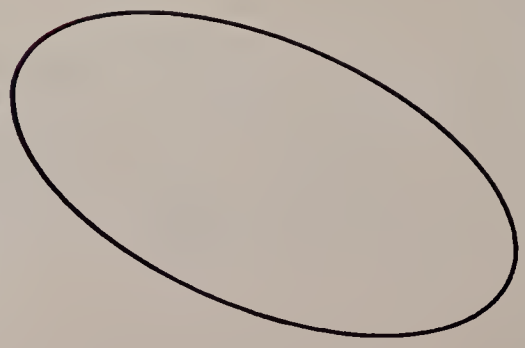
11.

12.

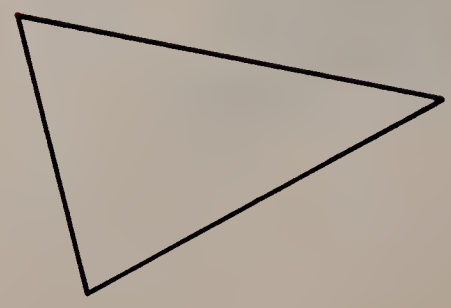


13.

14.



15.



Using Addends and Sum in Addition

Identifying parts for problem-solving; new term addend

1.

4 red socks in one part

2 blue socks in the other part

How many socks in all?

4 + 2 = ___ 2 + 4 = ___ ___ socks in all

If you add the numbers 4 and ___, the sum is ___.

4 is called an addend. 2 is called an addend. ___ is the sum.

2.

___ cowboy hats in one part

___ baby hats in the other part

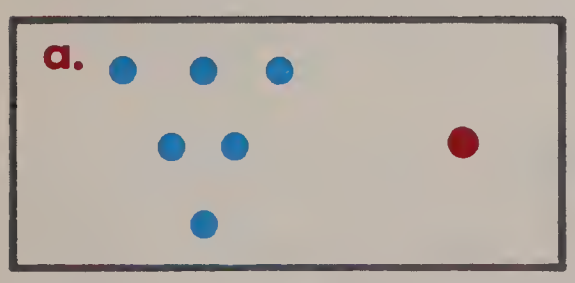
How many hats in all?

5 + ___ = ___ 3 + ___ = ___ ___ hats in all

5 is called an addend. 3 is called an addend. 8 is the sum.

3. Use the dot pictures to show addends and sums.

a.

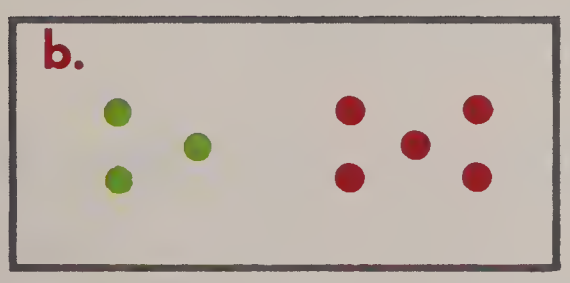


addend addend sum

6 + 1 = 7

1 + 6 = 7

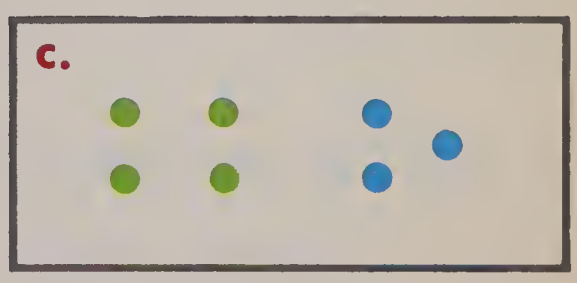
b.



addend addend sum

___ + ___ = 8

c.



addend addend sum

___ + ___ = ___

Using Sum and Addends in Subtraction

Identifying a whole and part for problem-solving

1.

____ dogs in all

____ white dogs in one part

How many dogs in the other part?

Cover the 7 white dogs.

11 − 7 = ____

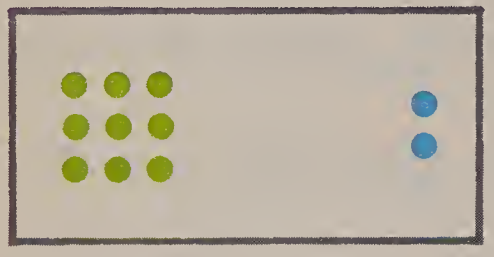
____ dogs in the other part

The number of dogs in all is 11. The sum is 11.

The number of white dogs in one part is ____. One addend is ____.

From the sum 11, subtract the addend 7 to find the other addend ____.

2.



____ dots in all

____ blue dots in one part

How many dots in the other part?

Cover the 2 blue dots.

11 − 2 = _____ ____ dots in the other part

The sum is ____. One addend is ____.

From sum 11, subtract addend 2 to find the other addend 9.

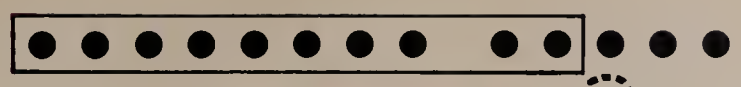
3. Finish these subtractions to show the other addend:

	sum	addend	addend		sum	addend	addend		sum	addend	addend
a.	9	− 2	= ____	**b.**	10	− 8	= ____	**c.**	7	− 3	= ____
d.	8	− 7	= ____	**e.**	9	− 6	= ____	**f.**	11	− 5	= ____
g.	10	− 4	= ____	**h.**	11	− 8	= ____	**i.**	10	− 7	= ____

Adding by First Finding a Sum 10

Using renaming and the Associative Property

1. 8 + 5 = ?



8 + 5 = 8 + 2 + 3

8 + 5 = 10 + 3

8 + 5 = ___

2. 9 + 6 = ?

9 + 6 = 9 + 1 + ___

9 + 6 = 10 + ___

9 + 6 = ___

3. 7 + 4 = ?

7 + 4 = 7 + ___ + ___

7 + 4 = ___ + ___

7 + 4 = ___

4. 8 + 7 = ?

8 + 7 = 8 + ___ + ___

8 + 7 = ___ + ___

8 + 7 = ___

5. 6 + 9 = ?

6 + 9 = ___ + ___ + ___

6 + 9 = ___ + ___

6 + 9 = ___

6. 9 + 7 = ?

9 + 7 = ___ + ___ + ___

9 + 7 = ___ + ___

9 + 7 = ___

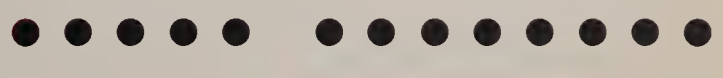
7. 8 + 6 = ?

8 + 6 = ___ + ___ + ___

8 + 6 = ___ + ___

8 + 6 = ___

8. 5 + 8 = ?



5 + 8 = ___ + ___ + ___

5 + 8 = ___ + ___

5 + 8 = ___

More about Adding by First Finding a Sum 10

Using renaming and the Associative Property

1. Finish the work.

a. $7 + 8 = ?$

$7 + 8 = 7 + 3 + ___$

$7 + 8 = 10 + ___$

$7 + 8 = ___$

b. $7 + 6 = ?$

$7 + 6 = 7 + ___ + ___$

$7 + 6 = 10 + ___$

$7 + 6 = ___$

c. $9 + 8 = ?$

$9 + 8 = 10 + 7$

$9 + 8 = ___$

d. $8 + 8 = ?$

$8 + 8 = 10 + ___$

$8 + 8 = ___$

e. $7 + 9 = ?$

$7 + 9 = 10 + ___$

$7 + 9 = ___$

f. $9 + 5 = ?$

$9 + 5 = 10 + ___$

$9 + 5 = ___$

2. Finish these:

a. $6 + 8 = 10 + ___$,

so $6 + 8 = ___$.

b. $7 + 5 = 10 + ___$,

so $7 + 5 = ___$.

c. $8 + 9 = 10 + ___$,

so $8 + 9 = ___$.

d. $8 + 4 = 10 + ___$,

so $8 + 4 = ___$.

e. $9 + 4 = 10 + ___$,

so $9 + 4 = ___$.

f. $6 + 7 = 10 + ___$,

so $6 + 7 = ___$.

Subtracting from 10 First

Using renaming and an associative property

1. 13 − 4 = ?

13 − 4 = 10 − 4 + 3

13 − 4 = 6 + 3

13 − 4 = ___

2. 15 − 8 = ?

15 − 8 = 10 − 8 + 5

15 − 8 = 2 + ___

15 − 8 = ___

3. 16 − 7 = ?

16 − 7 = 10 − ___ + ___

16 − 7 = ___ + ___

16 − 7 = ___

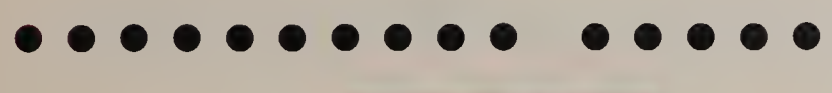
4. 14 − 6 = ?

14 − 6 = ___ − ___ + ___

14 − 6 = ___ + ___

14 − 6 = ___

5. 15 − 7 = ?

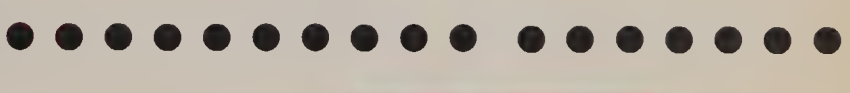


15 − 7 = ___ − ___ + ___

15 − 7 = ___ + ___

15 − 7 = ___

6. 17 − 8 = ?

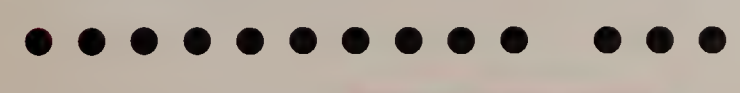


17 − 8 = ___ − ___ + ___

17 − 8 = ___ + ___

17 − 8 = ___

7. 13 − 9 = ?



13 − 9 = ___ − ___ + ___

13 − 9 = ___ + ___

13 − 9 = ___

8. 12 − 7 = ?

12 − 7 = ___ − ___ + ___

12 − 7 = ___ + ___

12 − 7 = ___

More about Subtracting from 10 First

Using renaming and an associative property

1. Finish the work.

a. 13 − 7 = ?

13 − 7 = 10 − 7 + 3

13 − 7 = 3 + 3

13 − 7 = ____

b. 14 − 8 = ?

14 − 8 = 10 − 8 + ____

14 − 8 = 2 + ____

14 − 8 = ____

c. 12 − 5 = ?

12 − 5 = 10 − ____ + ____

12 − 5 = ____

d. 13 − 5 = ?

13 − 5 = 10 − ____ + ____

13 − 5 = ____

e. 13 − 6 = ?

13 − 6 = ____ − ____ + ____

13 − 6 = ____

f. 14 − 5 = ?

14 − 5 = ____ − ____ + ____

14 − 5 = ____

2. Finish these:

a. 12 − 4 = 6 + 2,

so 12 − 4 = ____.

b. 16 − 9 = ____ + ____,

so 16 − 9 = ____.

c. 13 − 8 = ____ + ____,

so 13 − 8 = ____.

d. 16 − 8 = ____ + ____,

so 16 − 8 = ____.

e. 15 − 9 = ____ + ____,

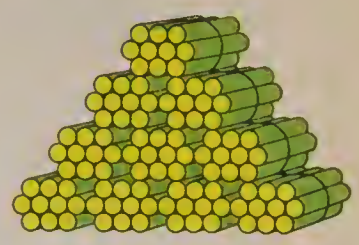
so 15 − 9 = ____.

f. 15 − 6 = ____ + ____,

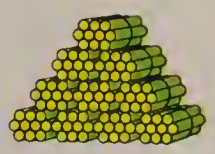
so 15 − 6 = ____.

Whole Numbers Not Greater than 200

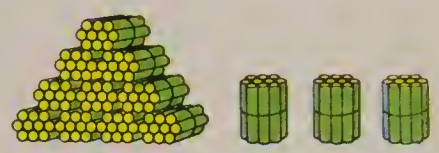
1. How many tens? ____ tens



We may think of 10 tens as 1 hundred.

We may group 10 's to show 1  . ____ hundred

2. How many are there? Finish the work.

a. or 

13 tens, or 1 hundred 3 tens

b. or

____ tens, or ____ hundred ____ tens

c. or

____ tens, or ____ hundred ____ tens

d. or

____ tens, or ____ hundred ____ tens

e. or

____ tens ____ ones, or ____ hundred ____ tens ____ ones

f. or

____tens ____ ones, or ____ hundred ____ tens ____ ones

More about Whole Numbers Not Greater than 200

Base ten, place value, and writing numerals through 200

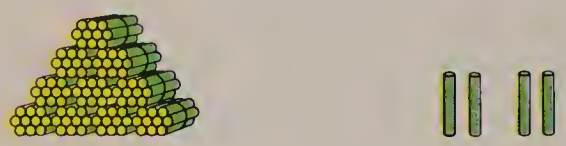
1. Finish the work. We use three digits to show these numbers.

a.

hundreds tens ones

1 3 2

b.



hundreds tens ones

1 0 4

c.

hundreds tens ones

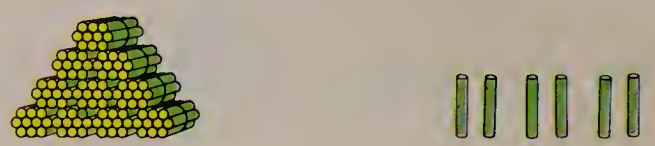
1 3 0

d.

hundreds tens ones

___ ___ ___

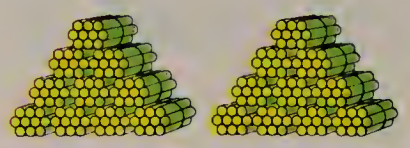
e.



hundreds tens ones

___ ___ ___

f.



hundreds tens ones

___ ___ ___

2. What is the number? We use three digits to show these numbers.

	hundreds	tens	ones	
a. 1 hundred and 3 tens and 7 ones	1	3	7	137
b. 1 hundred and 8 tens and 6 ones	___	___	___	___
c. 1 hundred and 0 tens and 3 ones	1	0	3	103
d. 1 hundred and 0 tens and 8 ones	___	___	___	___
e. 1 hundred and 5 tens and 2 ones	___	___	___	___
f. 1 hundred and 0 tens and 5 ones	___	___	___	___
g. 1 hundred and 2 tens and 0 ones	1	2	0	120
h. 2 hundreds and 0 tens and 0 ones	___	___	___	___

Order of Whole Numbers Not Greater than 200

Order of numbers through 200; inequalities

1. In the empty boxes, write the missing number names.

90	91	92	93	94	95	96		98	99
100	101	102	103		105	106	107	108	109
110	111	112	113	114	115	116	117	118	119
	121		123	124	125		127	128	129
130	131	132	133	134	135	136	137	138	139
140	141	142	143	144	145	146	147	148	149
150	151	152	153	154	155	156	157	158	
160		162	163	164		166	167	168	169
170	171	172	173	174	175	176	177		179
180	181	182		184	185	186	187	188	189
	191	192	193	194	195		197	198	199
200									

2. Write the missing numerals. Use three digits.

a. 170 171 _____ _____

b. _____ 120 _____ _____

c. 128 _____ _____ _____

d. 197 _____ _____ _____

3. Write = or ≠ in each ring. 137 ◯ 173 105 ◯ 150

4. Write = or G or L in each ring. 185 ◯ 192 167 ◯ 167

Do You Remember?

1. Finish these:

a. $7 + ____ = 10$

b. $10 - ____ = 4$

c. $4 + 6 - 6 = ____$

d. $10 - 7 + 7 = ____$

e. $9 + ____ = 9$

f. $8 - ____ = 0$

2. Finish the work.

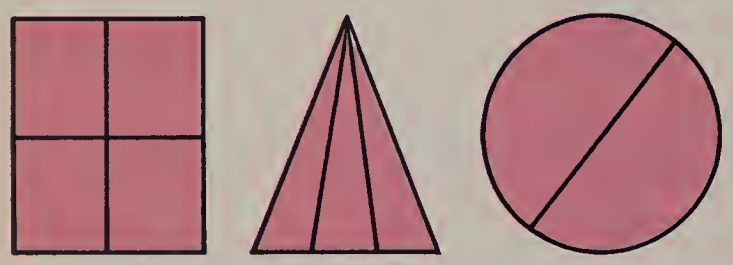
a. $70 + 8 = ____$

b. $56 = 50 + ____$

c. $80 + 6 = ____$

d. $69 = 60 + ____$

3. Write $\frac{1}{2}$ on each part showing one half. Write $\frac{1}{4}$ on each part showing one fourth.



4. Jane has 9 dolls. Sue has 5 dolls. Jane has how many more dolls than Sue?

_____ ____ dolls

5. Find the sums.

a. $2 + 8 = ____$ **b.** $5 + 4 = ____$

6. Find the other addend.

a. $9 - 6 = ____$ **b.** $10 - 3 = ____$

7. Finish the work.

a. $32 + 6 = ?$

$32 + 6 = 30 + 2 + ____$

$32 + 6 = 30 + ____$

$32 + 6 = ____$

b. $78 - 5 = ?$

$78 - 5 = 70 + 8 - ____$

$78 - 5 = 70 + ____$

$78 - 5 = ____$

8. Bob had 8 rabbits. Some jumped away and only 6 of them were left. How many rabbits jumped away?

_____ ____ rabbits

9. How many digits?

200	64	9	108
____	____	____	____

Pairs of Parts of a Set of 12

Separating a set into two subsets

1. ___ blue cornflowers in all in the picture.

___ cornflowers are tall. ___ cornflowers are not tall.

12; 9 and ___ 12; 3 and ___

2. ___ roses in all. ___ roses are red. ___ are yellow.

12; ___ and ___ 12; ___ and ___

3. ___ in all

12; ___ and ___

12; ___ and ___

4. ___ in all

12; ___ and ___

Writing about Pairs of Parts of a Set of 12

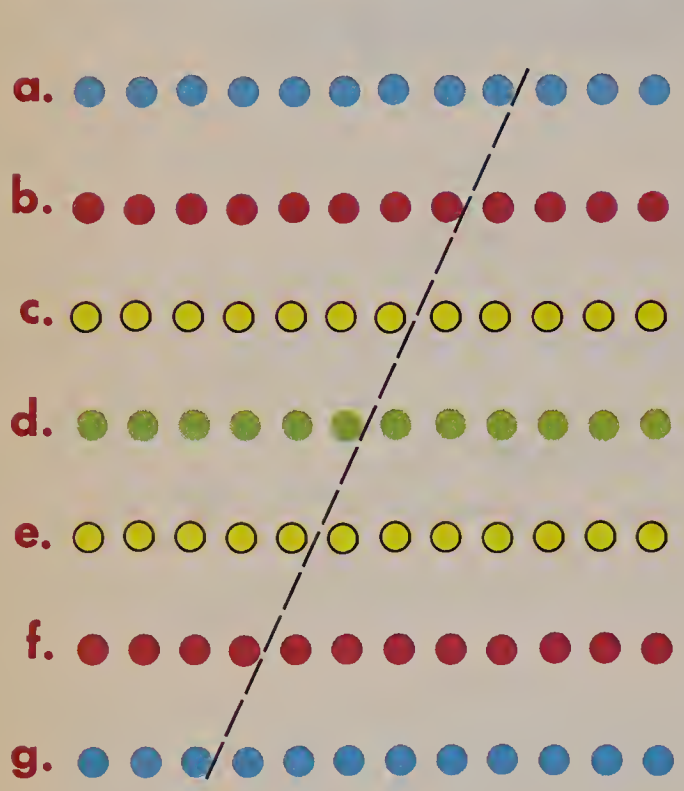
Separating a set into two subsets

1. Write in two ways about these parts of a set of 12:

12; ___ and ___ 12; ___ and ___ 12; ___ and ___

12; ___ and ___ 12; ___ and ___ 12; ___ and ___

2. Write about these sets of 12 and the parts shown:



a. 12; 9 and 3 12; 3 and 9

b. 12; ___ and ___ 12; ___ and ___

c. 12; ___ and ___ 12; ___ and ___

d. 12; ___ and ___ 12; ___ and ___

e. 12; ___ and ___ 12; ___ and ___

f. 12; ___ and ___ 12; ___ and ___

g. 12; ___ and ___ 12; ___ and ___

3. What is the other part?

a. One part of a set of 12 is 6.

The other part is ___.

b. One part of a set of 12 is 9.

The other part is ___.

c. One part of a set of 12 is 4.

The other part is ___.

d. One part of a set of 12 is 7.

The other part is ___.

e. One part of a set of 12 is 8.

The other part is ___.

f. One part of a set of 12 is 5.

The other part is ___.

Sets of A. and S. Facts Having Sum 12

Related A. and S. facts; dozen concept

1. ___ jars of paint in all

___ jars in the box

___ jars not in the box

Show the set of A. and S. facts using 12, 9, and 3.

9 + ___ = ___ _____

12 − ___ = ___ _____

12 things are 1 dozen things. The picture shows 1 dozen jars.

2. 12 paint brushes in all. ___ brushes are short. ___ are long.

Show the set of A. and S. facts using 12, 7, and 5.

5 + ___ = ___ _____

12 − ___ = ___ _____

3. 12 eggs in all

___ eggs are in the box.

___ are in the man's hands.

Show the set of A. and S. facts using 12, 8, and 4.

8 + ___ = ___ _____

12 − ___ = ___ _____

More about Sets of A. and S. Facts Having Sum 12

Related A. and S. facts

1.

Are there 1 dozen bottles?

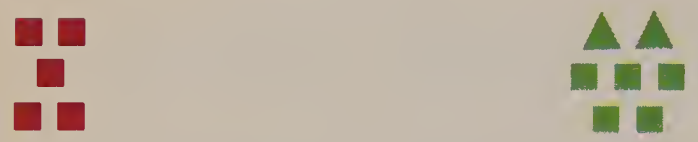
Yes No

12 bottles in all. ___ are in one box. ___ are in the other box.
Show the set of A. and S. facts using 12, 6, and 6.

6 + ___ = ___ 12 − ___ = ___

2. Write about the parts. Then show the set of A. and S. facts.

a.

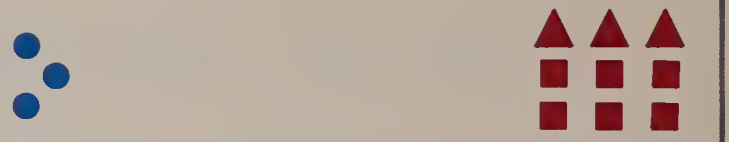


12; 5 and ___

___ ___

___ ___

b.



___; ___ and ___

___ ___

___ ___

c.

___; ___ and ___

___ ___

___ ___

3. Which pairs of addends can you use to get the sum 12? Draw rings.

a.	6, 5	**e.**	4, 8
b.	3, 9	**f.**	1, 9
c.	4, 7	**g.**	6, 3
d.	7, 5	**h.**	6, 6

Related A. Facts and S. Facts

Inverses; A. and S. practice

1. Finish the work to show facts with sum 11.

9	+ ___	=	11	• • • • • •		11	− ___	=	9
8	+ ___	=	11	• • • • • •		11	− ___	=	8
7	+ ___	=	11	• • • • • •		11	− ___	=	7
6	+ ___	=	11	• • • • • •		11	− ___	=	6
5	+ ___	=	11	• • • • • •		11	− ___	=	5
4	+ ___	=	11	• • • • • •		11	− ___	=	4
3	+ ___	=	11	• • • • • •		11	− ___	=	3
2	+ ___	=	11	• • • • • •		11	− ___	=	2

2. Finish the work to show facts with sum 12.

9	+ ___	=	12	• • • • • •		12	− ___	=	9
8	+ ___	=	12	• • • • • •		12	− ___	=	8
7	+ ___	=	12	• • • • • •		12	− ___	=	7
6	+ ___	=	12	• • • • • •		12	− ___	=	6
5	+ ___	=	12	• • • • • •		12	− ___	=	5
4	+ ___	=	12	• • • • • •		12	− ___	=	4
3	+ ___	=	12	• • • • • •		12	− ___	=	3

● Show each sum or other addend.

a. 2 + 7 = ___	**b.** 10 − 1 = ___	**c.** 1 + 8 = ___	**d.** 3 + 7 = ___
e. 4 + 5 = ___	**f.** 10 − 4 = ___	**g.** 10 − 3 = ___	**h.** 5 + 5 = ___
i. 10 − 2 = ___	**j.** 2 + 8 = ___	**k.** 10 − 6 = ___	**l.** 3 + 6 = ___
m. 1 + 9 = ___	**n.** 10 − 8 = ___	**o.** 10 − 9 = ___	**p.** 4 + 6 = ___

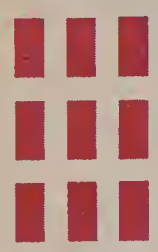
Working with Addition Facts

Using the Commutative Property of Addition; A. practice

1. Draw more in each box. Then show the pair of A. facts.

12 in all

a.

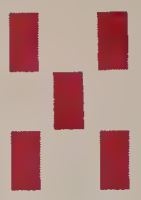


_____

_____

11 in all

b.

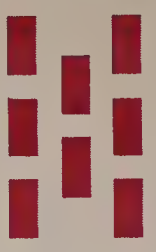


_____

_____

11 in all

c.



_____

_____

2. In box **d**, draw more to have 12 in all.

Is the A. fact 6 + 6 = 12? Yes No

Is there another addition to make a pair? Yes No

d.

3. Finish to show an A. fact. Then show the other A. fact of the pair.

a. 4 + 8 = ____

_____

b. 6 + 5 = ____

_____

c. 3 + 9 = ____

_____

d. 7 + 5 = ____

_____

e. 4 + 7 = ____

_____

f. 9 + 3 = ____

_____

g. 5 + 7 = ____

_____

h. 3 + 8 = ____

_____

4. Each time, write a name for the sum.

2 9	4 8	3 9	5 7	9 2	4 7	9 3	5 6	4 5 3
6 6	7 4	8 3	7 2	8 4	6 5	3 8	7 5	

Working with Subtraction Facts

Related S. facts; S. practice

1. For boxes **a**, **b**, and **c**, show the pair of S. facts.

_____ _____ _____

_____ _____ _____

2. The S. fact for box **d** is _____.

Is here another subtraction fact to make a pair? Yes No

3. Finish to show a S. fact. Then show the other S. fact of the pair.

a. 11 − 7 = ___ **b.** 12 − 4 = ___ **c.** 12 − 9 = ___ **d.** 11 − 3 = ___

_____ _____ _____ _____

e. 12 − 7 = ___ **f.** 10 − 3 = ___ **g.** 11 − 6 = ___ **h.** 12 − 8 = ___

_____ _____ _____ _____

i. 12 − 3 = ___ **j.** 9 − 5 = ___ **k.** 10 − 4 = ___ **l.** 12 − 5 = ___

_____ _____ _____ _____

4. Each time, write a name for the other addend.

11 − 4 = ___	12 − 9 = ___	11 − 5 = ___	12 − 4 = ___	10 − 6 = ___	12 − 7 = ___	11 − 9 = ___	12 − 3 = ___	11 − 8 = ___
12 − 8 = ___	11 − 6 = ___	12 − 5 = ___	11 − 2 = ___	12 − 6 = ___	11 − 3 = ___	9 − 6 = ___	11 − 7 = ___	10 − 5 = ___

Using Addition and Subtraction

Problem-solving; A. and S. practice

Write your work.

1. The boys made a snowman. They put 3 little buttons and 8 big buttons on him. How many buttons did they use in all?

_____ ___ buttons

2. Fred had made 12 snowballs to throw at the snowman. After throwing 5, how many snowballs did he have left?

_____ ___ snowballs

3. One night 4 inches of snow fell. The next night 8 inches more fell. In the two nights, how many inches of snow fell?

_____ ___ inches

4. Sam took a ride on his sled 5 times on one hill and 6 times on another hill. That was how many rides in all?

_____ ___ rides

5. Listen to the problem. Think. Then write your work.

a. _____ **b.** _____ **c.** _____

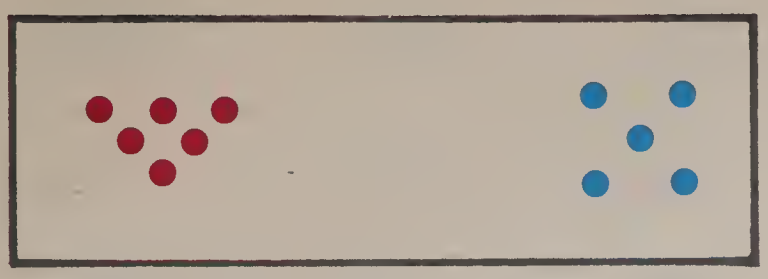
Show each sum or other addend.

6.	4 + 8 = ___	12 − 3 = ___	8 + 4 = ___	11 − 6 = ___
7.	12 − 9 = ___	4 + 7 = ___	12 − 5 = ___	3 + 8 = ___
8.	5 + 6 = ___	12 − 6 = ___	3 + 9 = ___	11 − 7 = ___
9.	12 − 4 = ___	11 − 3 = ___	11 − 4 = ___	9 + 3 = ___
10.	7 + 5 = ___	12 − 8 = ___	8 + 3 = ___	11 − 5 = ___
11.	6 + 6 = ___	5 + 7 = ___	11 − 9 = ___	12 − 7 = ___

Do You Know?

1. Finish the work for these dot pictures:

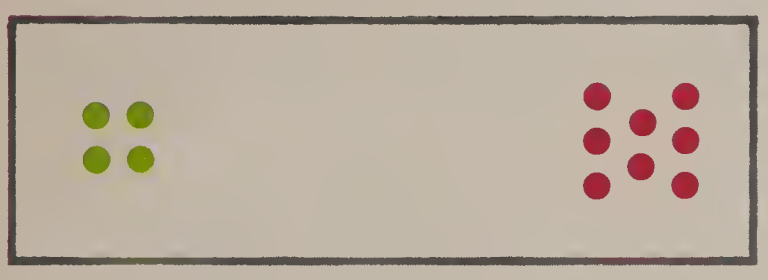
a.



___; 6 and ___

___; ___ and 6

b.



___; 4 and ___

___; ___ and 4

2. Finish each of these:

a. One part of a set of 11 is 2. The other part is ___.

b. One part of a set of 12 is 6. The other part is ___.

3. What numeral shows 1 hundred 4 tens 9 ones? _____

4. Write G or L in the ring.

a. 183 ◯ 138

b. 109 ◯ 190

5. Finish to show sets of A. and S. facts.

a. 8 + 3 = ___

_____

_____

_____

b. 5 + 7 = ___

_____

_____

_____

6. Finish each of these:

a. 9 + 5 = 9 + 1 + ___

9 + 5 = 10 + ___

9 + 5 = ___

b. 15 − 7 = 10 − 7 + ___

15 − 7 = ___ + ___

15 − 7 = ___

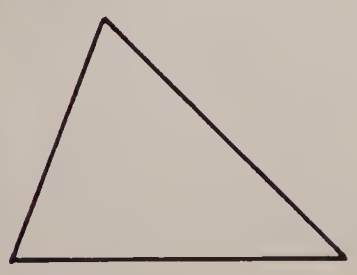
7. Write the answers.

a. 11 − 5 = ___ **b.** 3 + 9 = ___

c. 12 − 7 = ___ **d.** 8 + 3 = ___

e. 4 + 8 = ___ **f.** 11 − 4 = ___

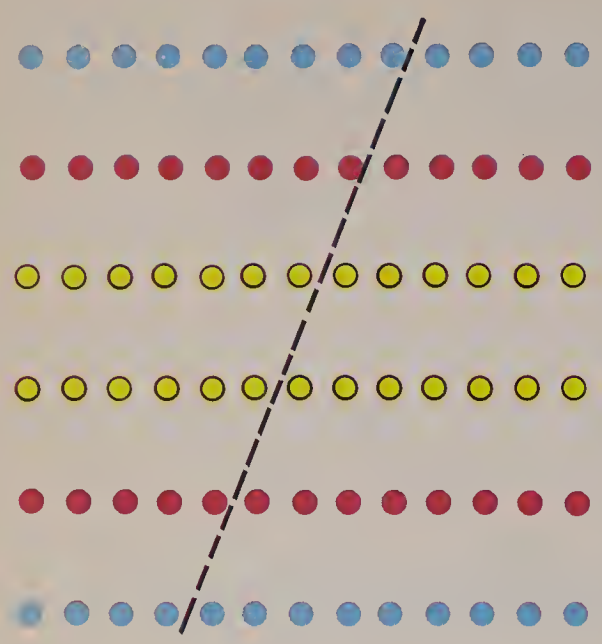
8.



Pairs of Parts of a Set of 13

Separating a set into two subsets; addends-sum relationship

1. Write in two ways about these parts of a set of 13:



a. 13; 9 and 4 13; 4 and 9

b. 13; ___ and ___ 13; ___ and ___

c. 13; ___ and ___ 13; ___ and ___

d. 13; ___ and ___ 13; ___ and ___

e. 13; ___ and ___ 13; ___ and ___

f. 13; ___ and ___ 13; ___ and ___

2. Write what is missing.

a. 13; 4 and ___

13; ___ and ___

b. 13; 6 and ___

13; ___ and ___

c. 13; 5 and ___

13; ___ and ___

Finish this.

Addend	9	5	6		0	3		8
Addend	4	8		5	8		4	2
Sum	13	13	13	13		12	11	

Finish this.

Sum	13	13	13	12	11		10	
Addend	7	8	9			6		5
Addend	6	5	4	7	8	6	7	6

Sets of A. and S. Facts Having Sum 13

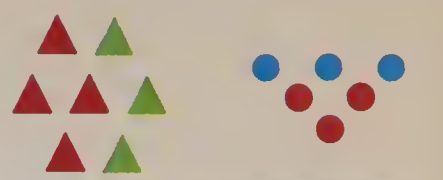
Related A. and S. facts

1. Finish to show the set of A. and S. facts for each picture.

a.

b.

c.



9 — 4 — — —

8 — 5 — — —

7 — 6 — — —

2. Finish to show sets of A. and S. facts.

a. 5 + 8 = 13

_____

_____

b. 6 + 7 = 13

_____

_____

c. 3 + 9 = 12

_____

_____

● Finish each of these:

a. 7 + ☐ = 12

b. 3 + ☐ = 11

c. 6 + ☐ = 12

d. ☐ + 7 = 11

e. ☐ + 4 = 12

f. ☐ + 5 = 11

g. 12 − ☐ = 9

h. 11 − ☐ = 3

i. 12 − ☐ = 7

j. ☐ − 6 = 5

k. ☐ − 8 = 4

l. ☐ − 7 = 4

m. 5 + ☐ = 12

n. 10 − 5 = ☐

o. ☐ + 8 = 11

p. 12 − ☐ = 6

q. 6 + 4 = ☐

r. ☐ − 3 = 8

Related A. Facts and S. Facts

Inverses; equalities and inequalities

1. Finish the work to show facts with sum 13.

$9 + ___ = 13$	$13 - ___ = 9$	
$8 + ___ = 13$	$13 - ___ = 8$	
$7 + ___ = 13$	$13 - ___ = 7$	
$6 + ___ = 13$	$13 - ___ = 6$	
$5 + ___ = 13$	$13 - ___ = 5$	
$4 + ___ = 13$	$13 - ___ = 4$	

2. Write = in a ring to mean is equal to.
Write G in a ring to mean is greater than.
Write L in a ring to mean is less than.

a. $6 + 6 \bigcirc 11$	**b.** $3 + 8 \bigcirc 11$	**c.** $4 + 8 \bigcirc 12$
d. $4 + 7 \bigcirc 12$	**e.** $6 + 5 \bigcirc 11$	**f.** $9 + 3 \bigcirc 11$
g. $12 - 8 \bigcirc 4$	**h.** $12 - 5 \bigcirc 6$	**i.** $11 - 4 \bigcirc 5$
j. $11 - 6 \bigcirc 6$	**k.** $12 - 3 \bigcirc 8$	**l.** $11 - 3 \bigcirc 7$

3. Write = or ≠ in the ring for each of these:

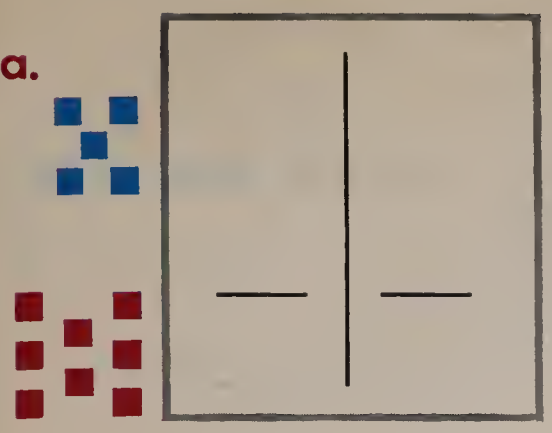
a. $7 + 5 \bigcirc 9 + 2$	**b.** $4 + 8 \bigcirc 10 + 2$	**c.** $5 + 6 \bigcirc 3 + 7$
d. $4 + 7 \bigcirc 8 + 4$	**e.** $3 + 9 \bigcirc 6 + 6$	**f.** $8 + 3 \bigcirc 0 + 9$
g. $12 - 9 \bigcirc 10 - 6$	**h.** $11 - 7 \bigcirc 12 - 8$	**i.** $12 - 5 \bigcirc 7 - 0$
j. $11 - 8 \bigcirc 10 - 9$	**k.** $12 - 8 \bigcirc 9 - 5$	**l.** $10 - 6 \bigcirc 12 - 7$
m. $6 + 5 \bigcirc 4 + 7$	**n.** $11 - 2 \bigcirc 12 - 3$	**o.** $6 + 6 \bigcirc 5 + 5$

Working with Addition Facts

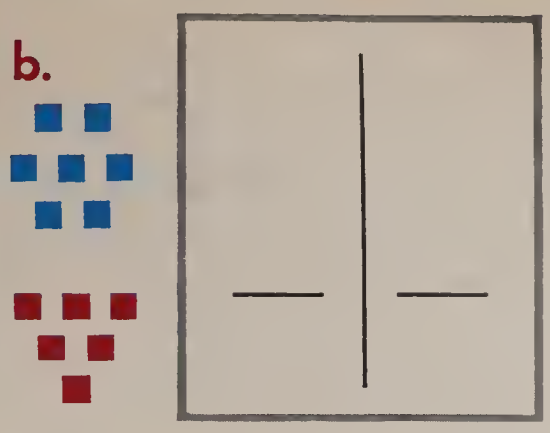
Using the Commutative Property of Addition

1. For each picture, show the pair of A. facts.

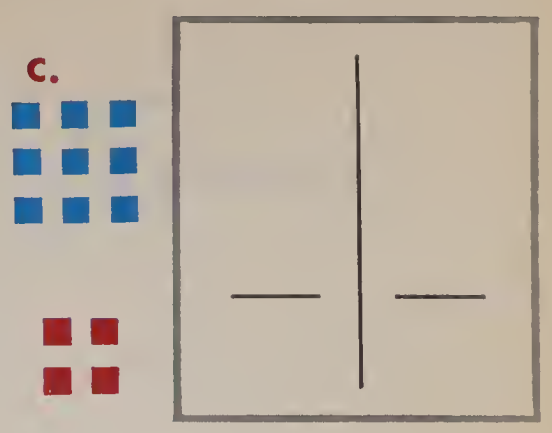
a.



b.



c.



2. Finish to show pairs of A. facts.

a. 4 + 9 = ___ _____

b. 8 + 5 = ___ _____

c. 6 + 7 = ___ _____

d. 5 + 8 = ___ _____

3. Each time, show a name for the sum.

3 9 ___	5 8 ___	4 7 ___	8 3 ___	7 5 ___	4 9 ___	3 8 ___	8 5 ___	5 4 4 ___
6 5 ___	5 7 ___	9 3 ___	6 7 ___	4 8 ___	5 6 ___	8 4 ___	7 6 ___	

● Name each sum.

1. 3 + 5 + 4 = ___	3 + 3 + 4 = ___	1 + 8 + 2 = ___	7 2 2 ___
2. 1 + 3 + 7 = ___	2 + 3 + 8 = ___	3 + 2 + 7 = ___	
3. 6 + 3 + 3 = ___	5 + 4 + 3 = ___	2 + 4 + 7 = ___	
4. 8 + 5 + 0 = ___	3 + 0 + 9 = ___	0 + 5 + 6 = ___	
5. 6 + 2 + 5 = ___	2 + 7 + 4 = ___	2 + 4 + 6 = ___	

Working with Subtraction Facts

Related subtraction facts; A. and S. practice

1. For each picture, show the pair of S. facts.

13 - ___ ___ ___

13 - ___ ___ ___

2. Finish to show pairs of S. facts.

a. 13	b. 13	c. 13	d. 13
4 ___	8 ___	7 ___	9 ___

3. Write the answers for these subtractions:

12 − 3 = ___	13 − 4 = ___	11 − 5 = ___	12 − 7 = ___	13 − 6 = ___	11 − 4 = ___	11 − 6 = ___	13 − 7 = ___	12 − 5 = ___
12 − 9 = ___	13 − 8 = ___	11 − 7 = ___	12 − 4 = ___	13 − 9 = ___	12 − 8 = ___	11 − 9 = ___	12 − 6 = ___	13 − 5 = ___

Write the answers.

1. 13 − 8 = ___	9 + 3 = ___	5 + 8 = ___	13 − 6 = ___
2. 12 − 5 = ___	13 − 7 = ___	7 + 5 = ___	4 + 9 = ___
3. 8 + 5 = ___	12 − 7 = ___	13 − 9 = ___	6 + 7 = ___
4. 12 − 8 = ___	13 − 4 = ___	5 + 7 = ___	9 + 4 = ___

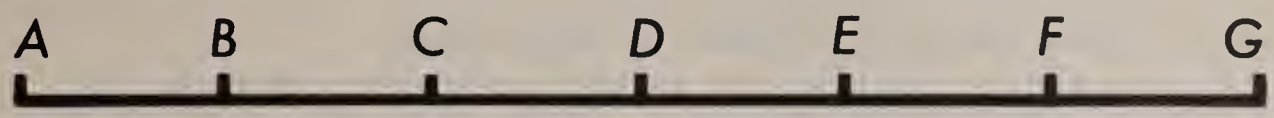
Measuring Pictures of Line Segments

Geometric ideas; unit-of-measurement idea

1. This is a picture of a line segment, or a segment:

We may name it segment *AG* or segment *GA*.

2. Now think about marking the picture. We want to show six shorter segments, each of the same length. Look at the picture below.



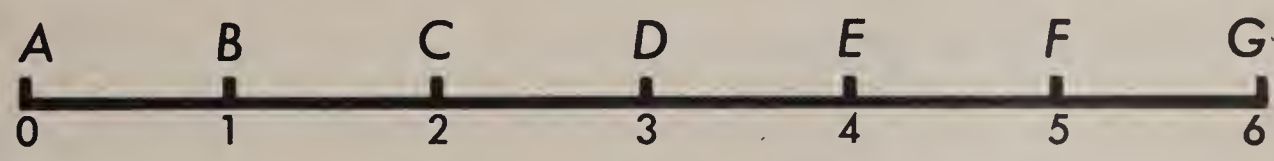
The six shorter segments may be named this way:

segment *AB* segment *CD* segment ____

segment *BC* segment DE segment ____

Is segment *BC* the same length as segment *EF*? _____

3. We may think of each short segment as a unit, as in this picture:



Segment *AB* is 1 unit. Segment *BC* is 1 unit. Segment *CD* is 1 unit. Each of these segments is 1 unit, too:

segment DE, segment ____, and segment ____.

4. Use the picture to help you answer these:

a. Segment *AC* is 2 units.

b. Segment *AD* is ____ units.

c. Segment *AE* is ____ units.

d. Segment *AF* is ____ units.

e. Segment *AG* is ____ units.

5. Now try these:

a. Segment *BD* is ____ units.

b. Segment *DG* is ____ units.

c. Segment *BF* is ____ units.

d. Segment *BG* is ____ units.

Measuring in Inch Units

Linear measurements; geometric ideas

1. You have been thinking about a line segment which has units of the same length.

Could a unit of another length have been used?

Yes No

For a long time, people have used a unit of length which they named 1 inch. We may measure the length of a thing in inches by finding the number of 1-inch units in the length.

2. Each unit of your ruler is about 1 inch long.

This picture shows a ruler which has ____ units of 1 inch.

3. With your ruler, measure each segment shown below. Then finish the work.

a. ———————— ____ inches long

b. ———— ____ inch long

c. ———————————————— ____ inches long

d. ———————————— ____ inches long

4. With your ruler, draw a picture of a segment

a. 2 inches long. . . . . .

b. 4 inches long. . . . . .

c. 5 inches long. . . . . .

5. Do not use your ruler. Draw a picture of a segment about

a. 1 inch long. . . . . .

b. 2 inches long. . . . . .

Adding Ones to Tens and Ones

Introducing use of expanded notation

1. You have had addition work like this before:

$52 + 4 = ?$

$52 + 4 = 50 + 2 + 4$

$52 + 4 = 50 + ___$

$52 + 4 = ___$

2. Here is another way to show your addition:

$52 + 4 = ?$

$50 + 2$

$\quad\quad 4$

$_____$

$50 + 6 = 56$

so, $52 + 4 = ___$.

3. Finish the work, as in 1:

$83 + 6 = ?$

$83 + 6 = 80 + ___ + ___$

$83 + 6 = 80 + ___$

$83 + 6 = ___$

4. Finish the work, as in 2.

$83 + 6 = ?$

$80 + 3$

$\quad\quad 6$

$_____$

$80 + 9 = ___$

so, $83 + 6 = ___$.

5. Finish each addition the other way.

a. $45 + 2 = ?$

$40 + 5$

$\quad\quad 2$

$_____$

$40 + ___ = ___$

so, $45 + 2 = ___$.

b. $31 + 7 = ?$

$30 + 1$

$\quad\quad 7$

$_____$

$30 + ___ = ___$

so, $31 + 7 = ___$.

c. $24 + 5 = ?$

$20 + 4$

$\quad\quad 5$

$_____$

$___ + ___ = ___$

so, $24 + 5 = ___$.

d. $75 + 3 = ?$

$70 + 5$

$\quad\quad 3$

$_____$

$___ + ___ = ___$

so, $75 + 3 = ___$.

Subtracting Ones from Tens and Ones

Using expanded notation

1. You have had subtraction work like this before:

$78 - 3 = ?$

$78 - 3 = 70 + 8 - 3$

$78 - 3 = 70 + ___$

$78 - 3 = ___$

2. Here is another way to show your subtraction:

$78 - 3 = ?$

$70 + 8$

$\quad\quad 3$

$_____$

$70 + 5 = 75$

so, $78 - 3 = ___$.

3. Finish the work, as in **1**.

$47 - 5 = ?$

$47 - 5 = 40 + ___ - ___$

$47 - 5 = 40 + ___$

$47 - 5 = ___$

4. Finish the work, as in **2**.

$47 - 5 = ?$

$40 + 7$

$\quad\quad 5$

$_____$

$40 + 2 = ___$

so, $47 - 5 = ___$.

5. Finish each subtraction the other way.

a. $59 - 6 = ?$

$50 + 9$

$\quad\quad 6$

$_____$

$50 + ___ = ___$

so, $59 - 6 = ___$.

b. $36 - 4 = ?$

$30 + 6$

$\quad\quad 4$

$_____$

$30 + ___ = ___$

so, $36 - 4 = ___$.

c. $95 - 4 = ?$

$90 + 5$

$\quad\quad 4$

$_____$

$___ + ___ = ___$

so, $95 - 4 = ___$.

d. $67 - 2 = ?$

$60 + 7$

$\quad\quad 2$

$_____$

$___ + ___ = ___$

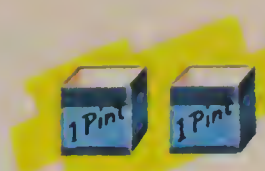
so, $67 - 2 = ___$.

Measuring Liquid

Liquid measurements

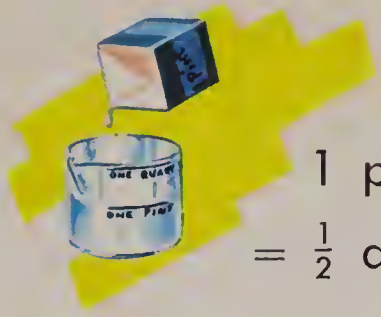
1 quart

1 pint

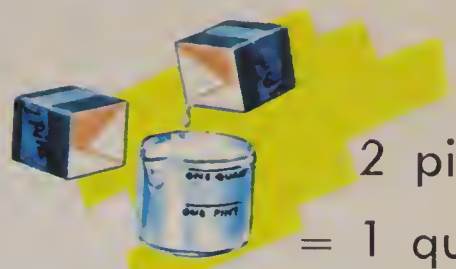


2 pints

1 quart



1 pint
= $\frac{1}{2}$ quart



2 pints
= 1 quart

1. Draw a ring around Yes or No.

a. Is 1 pint as much as 1 quart?

Yes No

b. Are 2 pints more than $\frac{1}{2}$ quart?

Yes No

c. Is 1 quart as much as 2 pints?

Yes No

d. Are 4 pints less than 1 quart?

Yes No

e. Is $\frac{1}{2}$ quart as much as 2 pints?

Yes No

f. Is $\frac{1}{2}$ quart more than 1 pint?

Yes No

2. How many pints of milk is each of these?

a. $\frac{1}{2}$ quart ____ pint

b. 1 quart ____ pints

3. We can use pints and quarts for some of these. Draw a ring if pints and quarts can be used.

milk	trees	paper	horses	cream	flowers
candy	water	paint	dimes	eggs	pie

4. Can a new kitten drink 1 quart of milk at one time?

Yes No

5. Can a boy drink 1 pint of milk a day?

Yes No

6. Teddy's mother buys $\frac{1}{2}$ quart of cream a day. Is this 1 pint of cream?

Yes No

7. 1 quart, or ____ pints

Helps for Adding and Subtracting

Deriving one fact from another

Finish and think about this work:

1. addend addend sum 5 + 4 = 9 5 + 6 = 11	**a.** Addend 5 is the same for both facts.	**b.** Addend 6 is 2 greater than addend 4.	**c.** Sum 11 is 2 greater than sum 9.
2. addend addend sum 7 + 3 = 10 5 + 3 = ____	**a.** Addend 5 is ____ less than addend 7.	**b.** Addend 3 is the same for both facts.	**c.** Sum 8 is ____ less than sum 10.
3. sum addend addend 8 − 5 = 3 10 − 7 = ____	**a.** Sum 10 is ____ greater than sum 8.	**b.** Addend 7 is ____ greater than addend 5.	**c.** Addend 3 is the same for both facts.
4. sum addend addend 12 − 7 = 5 10 − 7 = ____	**a.** Sum 10 is ____ less than sum 12.	**b.** Addend 7 is the same for both facts.	**c.** Addend 3 is ____ less than addend 5.

Now finish these:

5. 7 + 4 = 11,

so, 7 + 6 = ____.

1 addend and sum:

____ greater

6. 10 − 5 = 5,

so, 12 − 5 = ____.

sum and 1 addend:

____ greater

7. 9 + 4 = 13,

so, 9 + 2 = ____.

1 addend and sum:

____ less

8. 13 − 7 = 6,

so, 11 − 7 = ____.

sum and 1 addend:

____ less

9. 8 + 4 = 12,

so, 8 + 6 = ____.

1 addend and sum:

____ greater

10. 12 − 8 = 4,

so, 14 − 8 = ____.

sum and 1 addend:

____ greater

Do You Remember?

1. Finish these.

a. 5 + ___ = 12

b. 11 − ___ = 3

c. 7 + 4 − 4 = ___

d. 12 − 5 + 5 = ___

2. Write the answers.

a. 12 − 8 = ___

b. 6 + 5 = ___

c. 11 − 9 = ___

d. 3 + 9 = ___

3. Write = or ≠ in each ring.

a. 6 + 4 ◯ 3 + 8

b. 12 − 6 ◯ 10 − 4

c. 11 − 2 ◯ 4 + 4

d. 9 + 2 ◯ 5 + 6

4. Finish these:

a. 162 163 _____ _____

b. 127 _____ 129 _____

c. _____ 151 152 _____

d. 189 _____ _____ 192

5. Which of these things would you measure in pounds? Draw rings.

6. Jan had 12 cupcakes for her party. The children ate 9 of them. How many cupcakes were left?

_____ ___ cupcakes

7. Joe had 3 big shells, 2 shells not so big, and 6 little shells in a box. How many shells did Joe have in the box?

_____ ___ shells

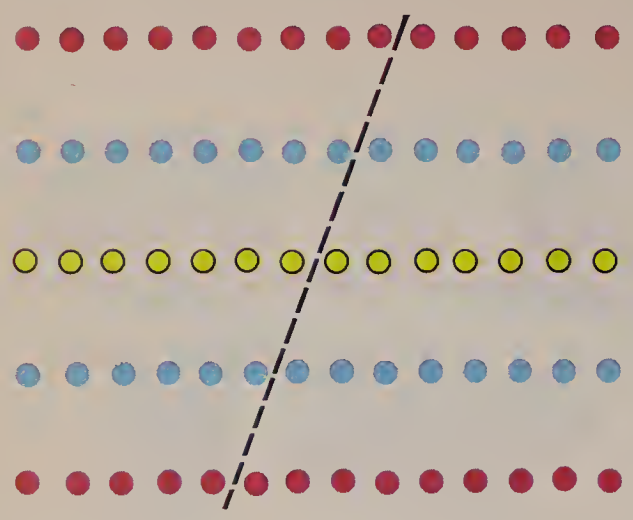
8. ___ things are 1 dozen things.

9.

Pairs of Parts of a Set of 14

Separating a set into two subsets; addends-sum relationship

1. Write in two ways about these parts of a set of 14:



a. 14; 9 and 5 14; 5 and 9

b. 14; ___ and ___ 14; ___ and ___

c. 14; ___ and ___ 14; ___ and ___

d. 14; ___ and ___ 14; ___ and ___

e. 14; ___ and ___ 14; ___ and ___

2. Write what is missing.

a. 14; 5 and ___

14; ___ and ___

b. 14; 8 and ___

14; ___ and ___

c. 14; 9 and ___

14; ___ and ___

3. What is the other part of a set of 14?

a. One part is 7.

The other part is ___.

b. One part is 5.

The other part is ___.

c. One part is 8.

The other part is ___.

● What is the other part?

1. One part of a set of 13 is 9.

The other part is ___.

2. One part of a set of 12 is 4.

The other part is ___.

3. One part of a set of 13 is 6.

The other part is ___.

4. Now finish this:

Sum	14	14	14	12	13	11		
Addend	7	9	6	4	8	3	5	9
Addend							7	4

Sets of A. and S. Facts Having Sum 14

Related A. and S. facts; equalities and inequalities

1. Show the set of A. and S. facts for each picture.

a.

b.

c.

_____ _____ _____

_____ _____ _____

_____ _____

_____ _____

2. Finish to show the set of A. and S. facts.

a. 6
8

b. 5
9

c. 7
7

___ ___ ___ ___ ___ ___ ___ ___ ___ ___

● **1.** Write G or L or = in each ring.

a. $5 + 8 \bigcirc 6 + 7$

b. $11 - 7 \bigcirc 13 - 7$

c. $12 - 4 \bigcirc 10 - 2$

d. $6 + 6 \bigcirc 9 + 4$

e. $13 - 8 \bigcirc 5 + 0$

f. $12 - 5 \bigcirc 4 + 7$

● **2.** Finish these:

a. $7 + 4 = 11$,

so, $7 + 6 =$ ____.

b. $10 - 3 = 7$,

so, $12 - 3 =$ ____.

c. $1 + 9 = 10$,

so, $3 + 9 =$ ____.

d. $10 - 4 = 6$,

so, $12 - 4 =$ ____.

e. $5 + 5 = 10$,

so, $7 + 5 =$ ____.

f. $13 - 8 = 5$,

so, $11 - 8 =$ ____.

Related A. Facts and S. Facts

Inverses; A. and S. practice

1. Finish to show A. and S. facts with sum 14.

$9 + ___ = 14$ . . . . . $14 - ___ = 9$

$8 + ___ = 14$ . . . . . $14 - ___ = 8$

$7 + ___ = 14$ . . . . . $14 - ___ = 7$

$6 + ___ = 14$ . . . . . $14 - ___ = 6$

$5 + ___ = 14$ . . . . . $14 - ___ = 5$

2. Finish each of these:

a. $4 + \square = 12$ **b.** $6 + \square = 14$ **c.** $8 + \square = 8$ **d.** $8 + \square = 13$

e. $\square + 5 = 11$ **f.** $\square + 7 = 13$ **g.** $\square + 7 = 14$ **h.** $\square + 9 = 9$

i. $13 - \square = 8$ **j.** $11 - \square = 4$ **k.** $14 - \square = 6$ **l.** $12 - \square = 7$

m. $14 - 5 = \square$ **n.** $12 - 6 = \square$ **o.** $13 - 4 = \square$ **p.** $10 - 7 = \square$

Enrichment

Look, think, and try!

$4 + 3 + \boxed{?} = 12$. Think, $4 + 3 = 7$ and $7 + \boxed{?} = 12$

$7 + 5 = 12$, so $4 + 3 + \boxed{5} = 12$.

a. $6 + 2 + \square = 11$ **b.** $5 + 1 + \square = 12$ **c.** $3 + 4 + \square = 10$

d. $3 + 5 + \square = 12$ **e.** $6 + 3 + \square = 11$ **f.** $2 + 8 + \square = 10$

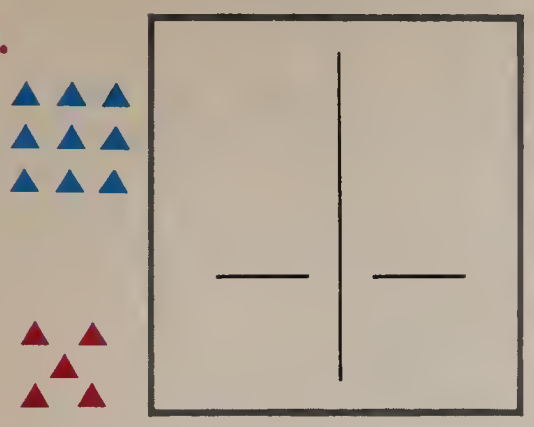
g. $6 + 2 + \square = 13$ **h.** $4 + 5 + \square = 13$ **i.** $3 + 4 + \square = 13$

Working with Addition Facts

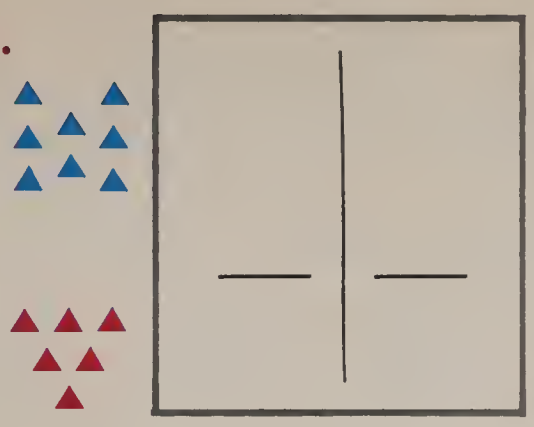
Using the Commutative Property of Addition; A. practice

1. For each picture, show the pair of A. facts.

a.



b.



2. $7 + 7 = 14$. Is there another A. fact to make a pair?

Yes No

3. Finish to show an A. fact. Then show the other A. fact of the pair.

a. $6 + 8 =$ ____ **b.** $5 + 9 =$ ____ **c.** $8 + 6 =$ ____ **d.** $9 + 5 =$ ____

_____ _____ _____ _____

4. Show the sums.

5 8	9 4	7 5	8 6	7 7	3 9	4 8	5 9	7 2 5
4 9	8 4	6 8	5 7	9 5	6 7	8 5	7 6	

Enrichment

Look, think, and try!

$\boxed{?} + 6 + 3 = 11$ Think, $6 + 3 = 9$ and $\boxed{?} + 9 = 11$

$2 + 9 = 11$, so $\boxed{2} + 6 + 3 = 11$.

a. $\square + 3 + 5 = 12$ **b.** $\square + 1 + 7 = 12$ **c.** $\square + 4 + 2 = 10$

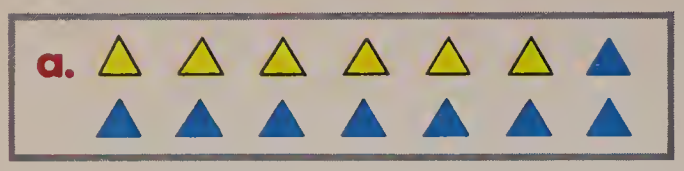
d. $5 + 3 + \square = 13$ **e.** $\square + 2 + 2 = 13$ **f.** $\square + 4 + 3 = 13$

g. $6 + 1 + \square = 13$ **h.** $\square + 1 + 4 = 13$ **i.** $\square + 3 + 6 = 13$

Working with Subtraction Facts

Related S. facts; A. and S. practice

1. For boxes **a** and **b**, show the pair of S. facts.

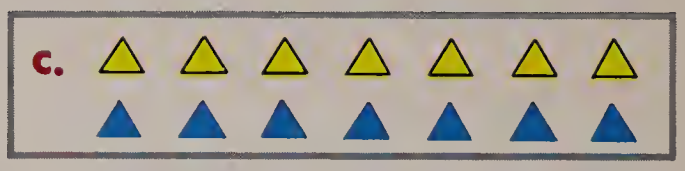
a. 

b.

14 ___ = ___ 14 ___ = ___ ___ = ___ ___ = ___

2. For **c**, the S. fact is

___.

c. 

Is there another subtraction fact to make a pair? Yes No

3. Finish to show a S. fact. Then show the other S. fact of the pair.

a.	**b.**	**c.**	**d.**
14	14	14	14
9 ___	6 ___	5 ___	8 ___

4. Show the S. facts.

13	14	13	11	13	14	12	13
7 ___	5 ___	4 ___	7 ___	8 ___	7 ___	8 ___	6 ___
12	13	13	14	12	11	14	14
7 ___	9 ___	5 ___	8 ___	5 ___	8 ___	9 ___	6 ___

Name the sum or the other addend.

a. 14 − 7 = ___	**b.** 5 + 9 = ___	**c.** 6 + 8 = ___	**d.** 13 − 6 = ___
e. 9 + 5 = ___	**f.** 12 − 3 = ___	**g.** 13 − 4 = ___	**h.** 14 − 6 = ___
i. 6 + 7 = ___	**j.** 11 − 6 = ___	**k.** 14 − 8 = ___	**l.** 14 − 5 = ___
m. 12 − 8 = ___	**n.** 7 + 7 = ___	**o.** 14 − 9 = ___	**p.** 8 + 6 = ___

More about Money

Values of sets of coins

1 half dollar

50¢

Write the answers.

a.

1 half dollar or ____ dimes worth ____¢

b.

1 half dollar or ____ nickels worth ____¢

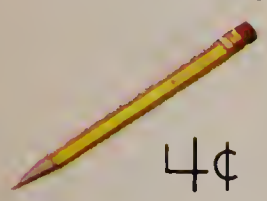
c.

1 half dollar or ____ quarters worth ____¢

The Correct Change

Values of change

1. For this you gave the store man a dime. You got back



4¢

Your change is worth ____¢.

2. For this you gave 15¢. You got back

12¢

Your change is worth ____¢.

3. For this you gave 20¢. You got back

16¢

Your change is worth ____¢.

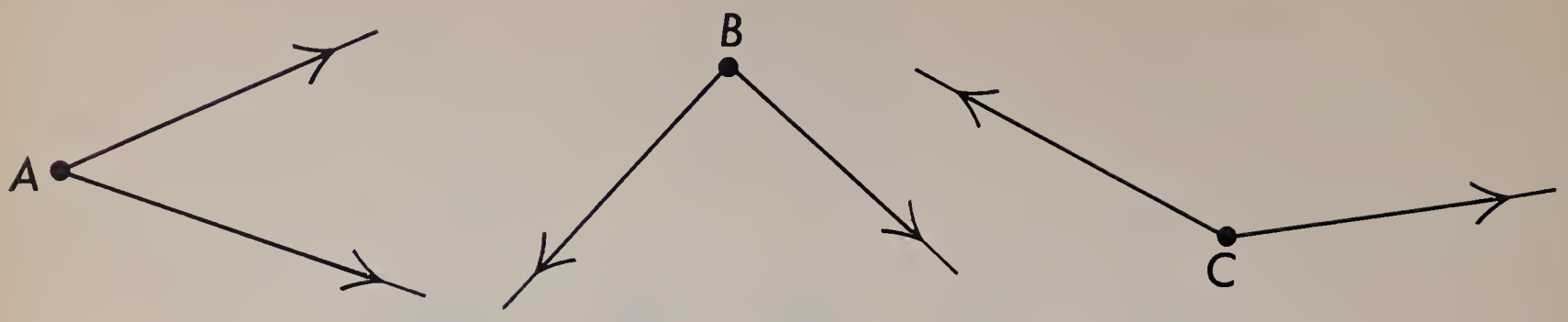
4. For this you gave 25¢. You got back

8¢

Your change is worth ____¢.

Rays and Angles

1. Each of these is a picture of an angle:

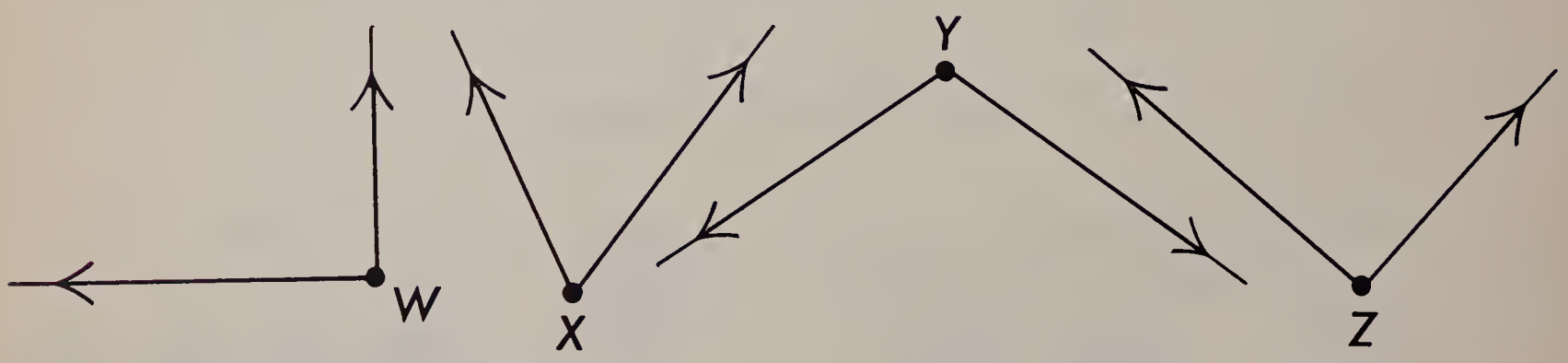


An angle has two rays from a point.

a. Mark over the picture of the two rays from point *A*.
You have made a picture of angle *A*.
b. Mark over the picture of the two rays from point *B*.
You have made a picture of angle *B*.
c. Mark over the picture of the two rays from point C.
You have made a picture of angle C.

2. Do you think that the two rays shown from point *B* make a square corner? Yes No

3. Now look at these pictures of angles:



Draw a ring around the letter for each angle picture you think shows a square corner: *W* *X* *Y* *Z*

4. Now place the square corner of a piece of paper on each of the angle pictures in **1** and **3**.

a. In **1**, which angle picture shows a square corner? ____
b. For **3**, draw a ring below if the picture shows a square corner.

angle *W* angle *X* angle *Y* angle *Z*

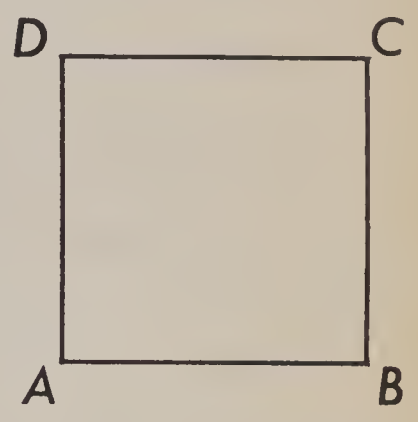
Simple Closed Curves and Right Angles

When two rays make a square corner, we call the angle a right angle.

1. Are all the angles shown right angles?

Yes No

2. We may name the four segments in this picture of a square. They are segment *AB*, segment BC, segment CD, and segment ____.



3. Place your paper square corner on this picture of a square so that one edge is along segment *AB* and the other edge is along segment *AD*. In the picture, do the segments from *A* help you to think about a right angle?

Yes No

4. Place your paper square corner on each of the other corners of the picture. Do the segments

a. from *B* help you think about a right angle? _____

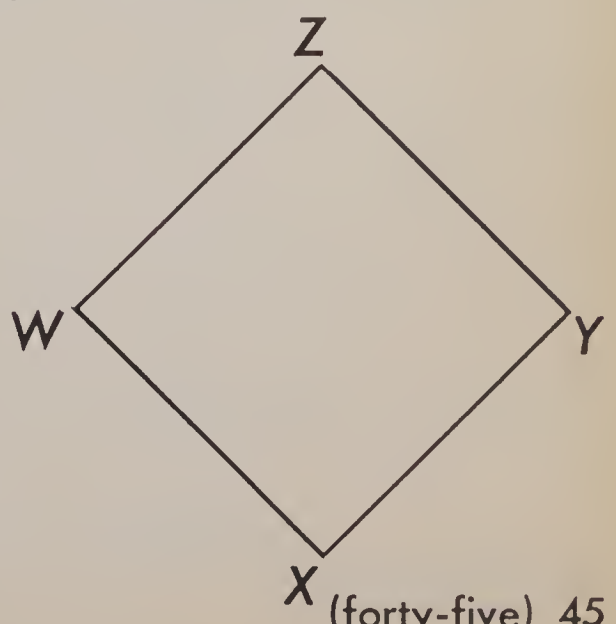
b. from *C* help you think about a right angle? _____

c. from *D* help you think about a right angle? _____

5. Look at this picture of a square. Place your paper square corner on each corner of the picture. Do you think about a right angle when you look at the segments shown

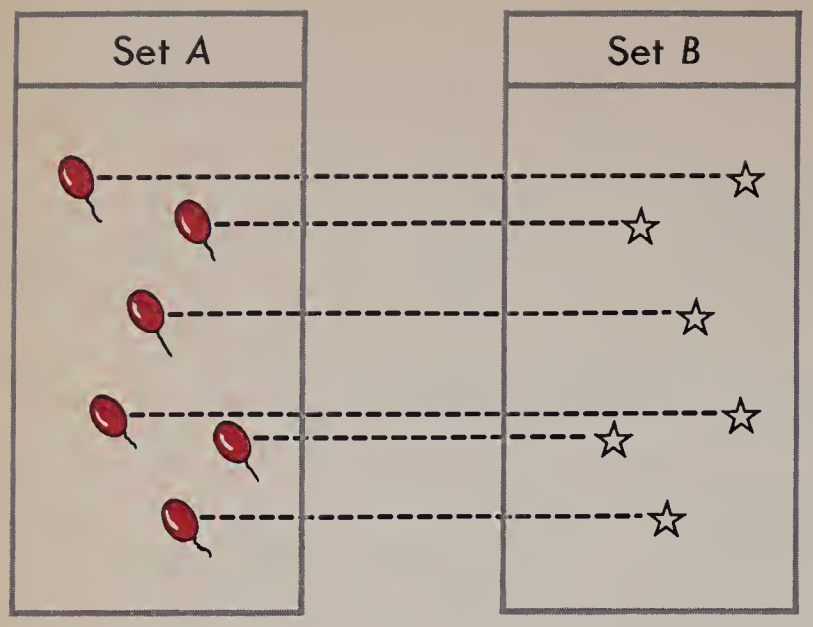
from *W*? _____ from *X*? _____

from *Y*? _____ from *Z*? _____



Sets of the Same Size

Using one-to-one correspondence



1. Set *A* and set *B* are sets of the same size. There is a member of set *B* for every member of set ____, and there is a member of set *A* for every member of set ____. Set *A* has as many members as set ____, and set *B* has as many members as set ____.

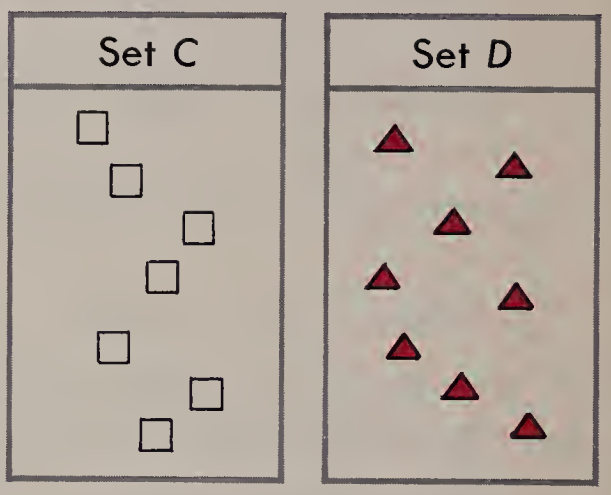
2. Is there a member of set *C* for every member of set *D*? Yes No

Is there a member of set *D* for every member of set *C*? Yes No

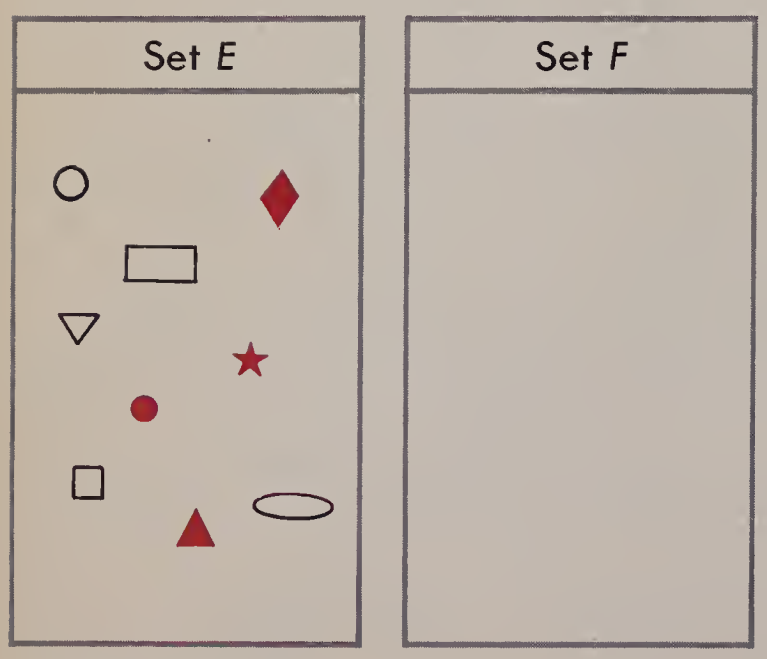
Set ____ has 1 more member than set ____.

Set ____ has 1 fewer member than set ____.

Are set *C* and set *D* sets of the same size? Yes No



3. Look at set *E*. Draw members of a new set, set *F*, so that set *E* and set *F* will be sets of the same size.



4. Set *E* does not have more members or fewer members than set ____.

5. Set *F* does not have more members or fewer members than set ____.

6. Are set *E* and set *F* sets of the same size? Yes No

More Helps for Adding and Subtracting

Deriving one fact from another

Finish and think about this work:

1. addend addend sum 7 + 4 = 11 8 + 3 = 11	**a.** Addend 8 is 1 greater than addend 7.	**b.** Addend 3 is 1 less than addend 4.	**c.** Sum 11 is the same for both facts.
2. addend addend sum 5 + 8 = 13 7 + 6 = ___	**a.** Addend 7 is ___ greater than addend 5.	**b.** Addend 6 is ___ less than addend 8.	**c.** Sum 13 is the same for both facts.
3. sum addend addend 9 − 6 = 3 9 − 8 = ___	**a.** Sum 9 is the same for both facts.	**b.** Addend 8 is ___ greater than addend 6.	**c.** Addend 1 is ___ less than addend 3.
4. sum addend addend 13 − 9 = 4 13 − 7 = ___	**a.** Sum 13 is the _____ for both facts.	**b.** Addend 7 is ___ less than addend 9.	**c.** Addend 6 is ___ greater than addend 4.

Now finish these:

5. 3 + 9 = 12,

so, 5 + 7 = ___.

1 addend: ___ greater

1 addend: ___ less

6. 1 + 8 = 9,

so, 2 + 7 = ___.

1 addend: ___ greater

1 addend: ___ less

7. 14 − 9 = 5,

so, 14 − 7 = ___.

1 addend: ___ less

1 addend: ___ greater

8. 6 + 6 = 12,

so, 8 + 4 = ___.

1 addend: ___ greater

1 addend: ___ less

9. 14 − 7 = 7,

so, 14 − 9 = ___.

1 addend: ___ greater

1 addend: ___ less

10. 13 − 4 = 9,

so, 13 − 7 = ___.

1 addend: ___ greater

1 addend: ___ less

Using Addition and Subtraction

Problem-solving; A. and S. practice

Write your work.

1. Fred counted the poles on part of his street. There were lights on 7 of the poles. There were no lights on the other 6 poles. How many poles did Fred count?

_____ ___ poles

2. One day 4 of the poles fell to the ground. How many poles were left standing on this part of Fred's street?

_____ ___ poles

3. Some men put up new poles. Eight men worked on the ground. Three went up the poles. How many men helped to put up the new poles?

_____ ___ men

4. Fred's father said that at one time there were only 5 poles on that part of the street. Now there are 13 poles. How many more poles are there now?

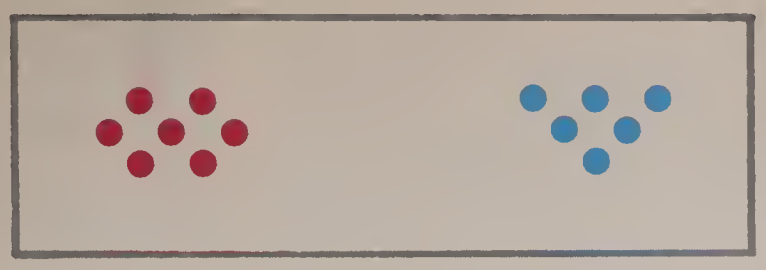
_____ ___ poles

● Write the answers.

5.	8 + 6 = ___	5 + 9 = ___	13 − 4 = ___	5 + 7 = ___
6.	14 − 7 = ___	6 + 6 = ___	12 − 5 = ___	8 + 4 = ___
7.	6 + 7 = ___	14 − 8 = ___	6 + 2 + 5 = ___	
8.	13 − 6 = ___	7 + 4 = ___	9 + 0 + 2 = ___	
9.	4 + 9 = ___	12 − 8 = ___	8 + 1 + 5 = ___	
10.	13 − 8 = ___	11 − 6 = ___	7 + 2 + 3 = ___	

Do You Know?

1. Finish the work for this dot picture:



___; 7 and ___

___; ___ and 7

2. Finish each of these:

a. One part of a set of 13 is 4.

The other part is ___.

b. One part of a set of 14 is 8.

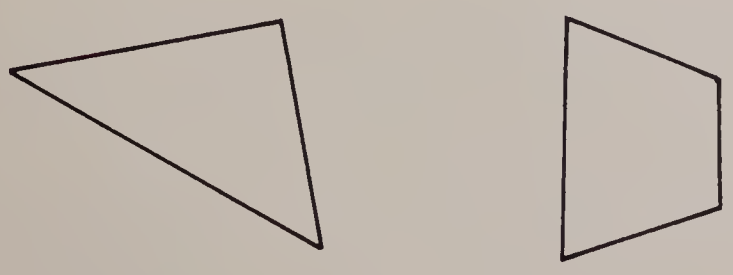
The other part is ___.

3. Finish these:

a. 1 quart, or ___ pints

b. 1 half dollar, or ___¢

4. Draw X on the picture that helps you to think of a right angle.



5. Finish to show sets of A. and S. facts.

a. 5 + 8 = ___

_____

_____

_____

b. 7 + 7 = ___

_____

6. Finish the work.

a. 23 + 5 = ?

20 + 3

5

_____

___ + ___ = ___

so, 23 + 5 = ___.

b. 69 − 4 = ?

60 + 9

4

_____

___ + ___ = ___

so, 69 − 4 = ___.

7. Write the answers.

a. 5 + 9 = ___

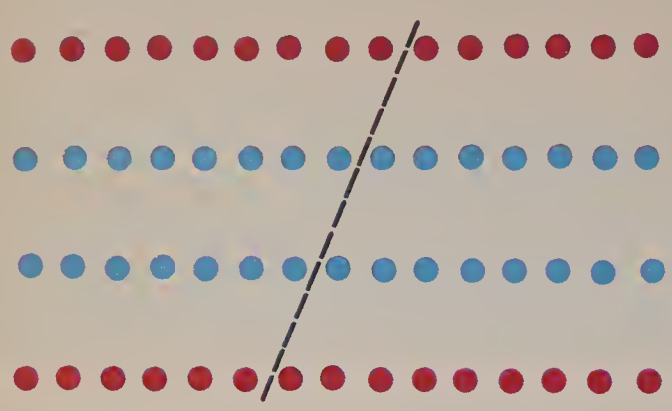
b. 13 − 6 = ___

8. This picture of a segment is about ___ inches long.

Pairs of Parts of a Set of 15 and a Set of 16

Separating a set into two subsets; addends-sum relationship

1. Write in two ways about these parts of a set of 15:

a.  15; 9 and 6 15; 6 and 9

b. 15; ___ and ___ 15; ___ and ___

c. 15; ___ and ___ 15; ___ and ___

d. 15; ___ and ___ 15; ___ and ___

2. Write in two ways about these parts of a set of 16:

a. 16; 9 and 7 16; 7 and 9

b. 16; ___ and ___ 16; ___ and ___

c. 16; ___ and ___ 16; ___ and ___

3. Write what is missing.

a. 16; 7 and ___

16; ___ and ___

b. 15; 8 and ___

15; ___ and ___

c. 15; 9 and ___

15; ___ and ___

4. What is the other part?

a. One part of a set of 15 is 6.

The other part is ___.

b. One part of a set of 16 is 8.

The other part is ___.

Finish this.

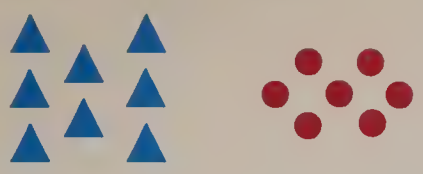
Addend	8				7	9	6	8
Addend		6	9	7	8		9	6
Sum	16	15	16	15		16		

Sets of A. and S. Facts Having Sum 15 or 16

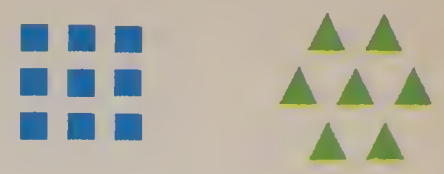
Related A. and S. facts

1. Show the set of A. and S. facts for each picture.

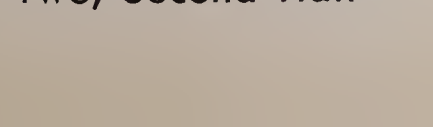
a.



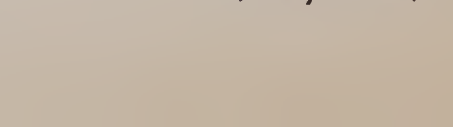
b.



c.



d.



There are only ___ A. fact and ___ S. fact for picture **d**.

2. Finish to show sets of A. and S. facts.

a. 7, 9 — ___ ___ ___ ___

b. 8, 7 — ___ ___ ___ ___

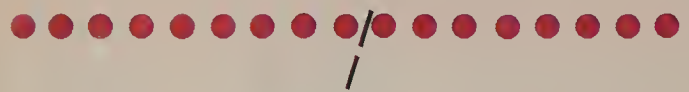
c. 9, 6 — ___ ___ ___ ___

d. 8, 8 — ___ ___

Pairs of Parts of a Set of 17 and a Set of 18

Separating a set into two subsets; addends-sum relationship

1. Write in two ways about these parts of a set of 17:

a.  17; 9 and 8 17; 8 and 9

b. 17; ___ and ___ 17; ___ and ___

2. Write about these parts of a set of 18:

18; ___ and ___ 18; ___ and ___

3. Write what is missing. **a.** 17; 9 and ___ **b.** 16; 7 and ___

17; ___ and ___ 16; ___ and ___

4. What is the other part?

a. One part of a set of 17 is 9.

The other part is ___.

b. One part of a set of 18 is 9.

The other part is ___.

c. One part of a set of 16 is 7.

The other part is ___.

d. One part of a set of 15 is 8.

The other part is ___.

e. One part of a set of 15 is 6.

The other part is ___.

f. One part of a set of 16 is 8.

The other part is ___.

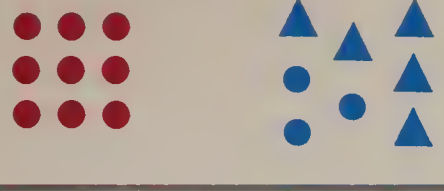
Finish this.

Sum	17	18	16	15	15	16	14	14
Addend	8	9	7	6				
Addend					8	8	9	7

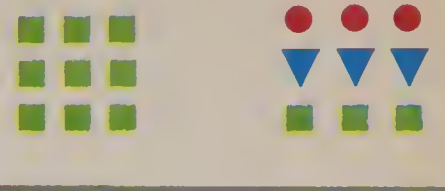
Sets of A. and S. Facts Having Sum 17 or 18

1. Show the set of A. and S. facts for each picture.

a.



b.



There are only ____ A. fact and ____ S. fact for picture **b.**

2. Finish to show the set of A. and S. facts.

a. $15 - 8 = \square$

b. $17 - 9 = \square$

c. $16 - 7 = \square$

d. $15 - 6 = \square$

e. $18 - 9 = \square$

f. $16 - 8 = \square$

Related Sets of A. Facts and S. Facts

Inverses

Finish to show A. and S. facts.

$9 + ___ = 15 \quad 15 - ___ = 9$

$8 + ___ = 15 \quad 15 - ___ = 8$

$7 + ___ = 15 \quad 15 - ___ = 7$

$6 + ___ = 15 \quad 15 - ___ = 6$

$9 + ___ = 16 \quad 16 - ___ = 9$

$8 + ___ = 16 \quad 16 - ___ = 8$

$7 + ___ = 16 \quad 16 - ___ = 7$

$9 + ___ = 17 \quad 17 - ___ = 9$

$8 + ___ = 17 \quad 17 - ___ = 8$

$9 + ___ = 18 \quad 18 - ___ = 9$

Enrichment

Look, think, and try!

$3 + \boxed{?} + 6 = 14$ Think, $3 + 6 = 9$ and $9 + \boxed{?} = 14$.

$9 + 5 = 14$, so $3 + \boxed{5} + 6 = 14$.

a. $2 + \square + 5 = 13$ **b.** $4 + \square + 5 = 13$ **c.** $3 + \square + 3 = 13$

d. $6 + 1 + \square = 14$ **e.** $\square + 4 + 4 = 14$ **f.** $6 + 3 + \square = 12$

g. $4 + \square + 2 = 12$ **h.** $5 + 4 + \square = 12$ **i.** $\square + 2 + 7 = 13$

Working with Addition Facts

Using the Commutative Property of Addition; A. practice

1. First show the sum. Then show the other A. fact of the pair.

a. $8 + 7 = \square$ _____

b. $5 + 9 = \square$ _____

c. $9 + 8 = \square$ _____

d. $6 + 8 = \square$ _____

e. $9 + 7 = \square$ _____

f. $6 + 9 = \square$ _____

g. $8 + 8 = \square$ Is there another A. fact to make a pair? _____

h. $9 + 9 = \square$ Is there another A. fact to make a pair? _____

2. Name the sums.

6 8	3 9	7 4	5 8	9 3	8 7	5 9	8 4	6 3 5
5 6	6 9	9 4	7 8	9 6	4 8	6 6	7 9	7 2 6
7 7	9 5	7 3	4 9	7 6	8 6	9 7	8 5	8 0 9
8 9	5 7	6 5	9 9	7 5	6 7	9 8	8 8	

$7 + 0 + 8 =$ ____ $5 + 2 + 7 =$ ____ $6 + 0 + 9 =$ ____

Working with Subtraction Facts

Related S. facts; S. practice

1. First write the answer. Then show the other S. fact of the pair.

a. 15 − 6 = ☐ _____

b. 17 − 9 = ☐ _____

c. 16 − 7 = ☐ _____

d. 14 − 5 = ☐ _____

e. 15 − 8 = ☐ _____

f. 14 − 6 = ☐ _____

g. 16 − 8 = ☐ Is there another S. fact to make a pair? _____

h. 18 − 9 = ☐ Is there another S. fact to make a pair? _____

2. Name the other addends.

14	13	15	11	7	13	15	15	11
8	4	7	7	7	9	8	6	5

14	13	8	11	12	13	11	12	8
9	5	0	6	7	8	3	4	8
16	10	12	9	14	11	11	9	14
9	6	9	0	5	8	9	9	7
16	17	12	12	18	12	11	6	13
7	8	6	8	9	5	4	6	6
15	16	11	17	14	13	8	14	7
9	8	2	9	7	7	8	6	0

How Many More Are Needed?

Using subtraction to find the number for one subset

1. Sue baked 8 cupcakes. There will be 12 children at Sue's party. Each is to have one cupcake. How many more cupcakes must Sue bake?

There need to be ____ cupcakes in all, or ____ in the whole set.

There are ____ cupcakes in one part of the set.

To find the number for the part needed, we subtract.

We may write: $12 - 8 = \square$.

So, Sue must bake ____ more cupcakes.

2. Sue needs 10 big stars for her party. She has made 7 stars. How many more stars must Sue make?

____ stars needed in the whole set; ____ stars in one part.

To find the number for the part needed, we subtract.

We may write: $12 - 7 =$ ____.

So, Sue must make ____ more stars.

---

3. Diana wanted 14 jacks to play a game. She had only 9 jacks. How many more jacks did she need to get for the game?

$14 - 9 = \square$

Diana needed to get ____ more jacks for the game.

4. Betty had 13 buttons for her doll's dress. She put 4 of them on the dress. How many buttons does she still need to put on?

$13 - 4 = \square$

Betty needed to put ____ more buttons on the dress.

How Many At First?

Using subtraction to find the number for one subset

1. Bill had some peanuts. His father gave him 5 more. Then Bill had 12 peanuts. How many peanuts did Bill have at first?

Bill had ___ peanuts in all, or ___ in the whole set.

There were ___ peanuts in one part of the set.

To find the number for the other part of the set, we subtract.

We may write: $12 - 5 = \square$.

So, Bill had ___ peanuts at first.

2. There were some baseballs in a box. A man put 6 more baseballs in the box. He told Bill there were then 10 baseballs in the box. How many baseballs were in the box at first?

___ balls in the whole set; ___ balls in one part.

To find the number for the other part of the set, we subtract.

We may write: $10 - 6 = \square$.

So, there were ___ baseballs in the box at first.

---

3. Bob had some marbles in his pocket. He put in 8 more marbles. When he counted them all there were 13. How many marbles did Bob have in his pocket at first?

$13 - 8 = \square$

Bob had ___ marbles in his pocket at first.

4. Tom had some toy trucks. He bought 4 new trucks. Then he had 11 toy trucks. How many toy trucks did Tom have before he bought the new ones?

$11 - 4 = \square$

Tom had ___ toy trucks before he bought the new ones.

More about Money

Values of sets of money

1 dollar bill

$1

Write the answers.

a.

1 dollar or ___ dimes

worth $___

b.

1 dollar or ___ half dollars

worth $___

c.

1 dollar or ___ quarters

worth $___

Problems about Money

Problem-solving

Write your work.

1. A big book is sold for 10¢. A little book is sold for 5¢. The big book costs how much more?

_____ ___ cents

2. Sue bought candy for 2¢, a ball for 5¢, and an apple for 4¢. How much in all did these things cost?

_____ ___ cents

3. A ruler costs 6¢. Ann gave the man a dime for a ruler. How much was her change worth?

_____ ___ cents

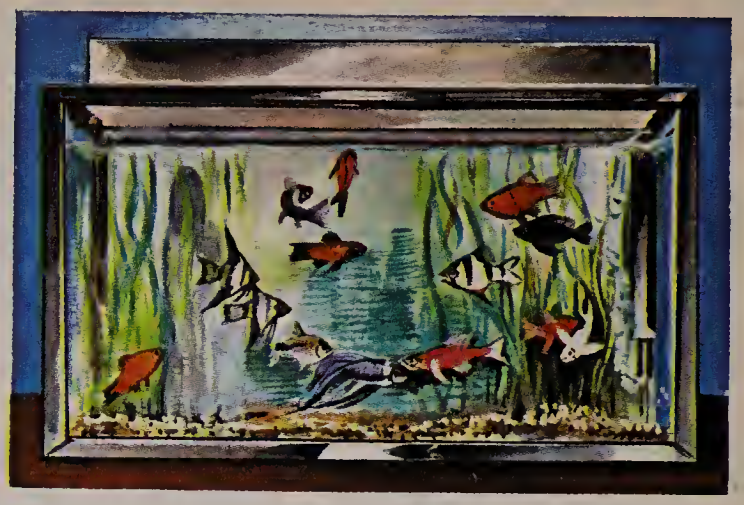
4. Mary had 11¢. She bought a box of crayons and had 5¢ left. Mary spent how much for crayons?

_____ ___ cents

Using Addition and Subtraction

Problem-solving; A. and S. practice

Write your work.



1. Kathy had some fish. Her brother gave her five more fish for her birthday. Then she had 14 fish. How many fish did Kathy have before her birthday?

_____ ___ fish

2. Kathy put 8 of her 14 fish in a new tank. Then how many of Kathy's fish were left in the old tank?

_____ ___ fish

3. One of Kathy's friends had 9 fish. The 14 fish that Kathy had were how many more fish than her friend had?

_____ ___ fish

4. Kathy bought six small boxes of one fish food and seven small boxes of another. How many boxes of fish food did Kathy buy?

_____ ___ boxes

5. Kathy's friend had 6 very small plants in her tank and 6 plants not so small. How many plants did Kathy's friend have in her tank?

_____ ___ plants

Finish these. Draw rings around answers that name even numbers.

6.	9 + 7 = ___	6 + 8 = ___	15 − 9 = ___	13 − 4 = ___
7.	8 + 8 = ___	14 − 7 = ___	6 + 9 = ___	12 − 5 = ___
8.	16 − 9 = ___	7 + 8 = ___	17 − 8 = ___	9 + 9 = ___
9.	17 − 9 = ___	8 + 9 = ___	7 + 7 = ___	16 − 7 = ___
10.	18 − 9 = ___	15 − 8 = ___	9 + 8 = ___	15 − 7 = ___

Do You Remember?

1. Write the answers.

a. 13 − 8 = ___ **b.** 14 − 6 = ___

c. 7 + 7 = ___ **d.** 6 + 7 = ___

e. 4 + 5 + 3 = ___

f. 6 + 2 + 5 = ___

2. Finish to show the set of A. and S. facts.

5 + 9 = ___

_____

_____

_____

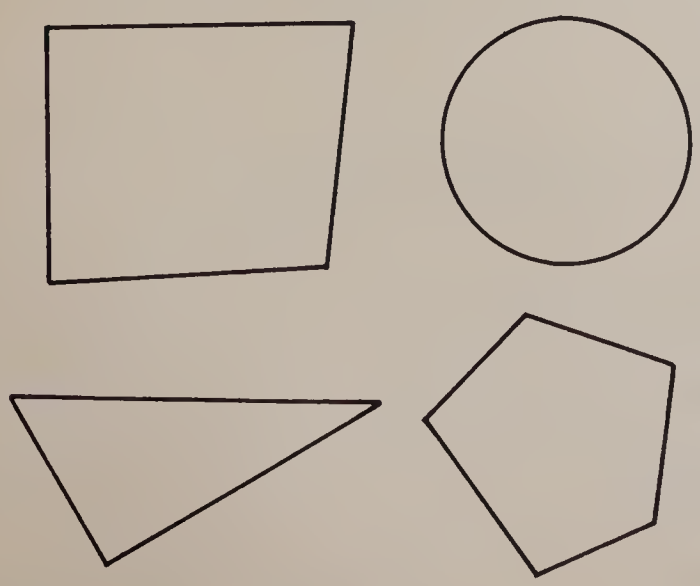
3. What time?

___ o'clock

4. Show the time.

half past 7

5. Put an X on each picture that shows one or more right angles.



6. Finish these:

a. 8 + ___ = 14 **b.** ___ + 8 = 8

c. 13 − ___ = 6 **d.** ___ − 8 = 0

e. 4 + 7 − 7 = ___

f. 12 − 9 + 9 = ___

7. Finish the work.

a. 43 + 6 = ?

40 + 3

6

_____

___ + ___, or ___

so, 43 + 6 = ___.

b. 78 − 3 = ?

70 + 8

3

_____

___ + ___, or ___

so, 78 − 3 = ___.

8. Write G or L or = in each ring.

a. 7 + 7 ◯ 5 + 9

b. 13 − 6 ◯ 12 − 7

c. 9 + 4 ◯ 6 + 6

d. 175 ◯ 157

An Addition Chart

Completing an array for study of A. facts and relationships

Addends

+	0	1	2	3	4	5	6	7	8	9
0										
1										
2										
3										
4										
5										
6										
7										
8										
9										

Addends

Think about the chart. In the red boxes and the blue boxes there are names for addends.

1. **a.** The + shows that we are to (add.) subtract.
   b. We will add addends and name addends. sums.
2. Start at **0**, go up to +, and then over to **0**. Think, 0 + 0 = ____.
3. Write over 0 below **0** in the chart.
4. Again start at **0**, go up to +, and then over to **1**. Think, 0 + 1 = ____.
5. Write over | below **1** in the chart.
6. Finish the row in the same way. Start at **0** each time.
7. For the next row, find **1**. Think, 1 + 0 = ____.
8. Write over | below **0** in the chart.
9. Start at **1** each time to finish this row.
10. Now finish the other rows of the chart.

Other Names for Numbers

Number names

1. Match names for the same even numbers.

a.	12 − 2	18
b.	8 − 4	6 + 2
c.	9 + 3	ten
d.	eight	12
e.	9 + 9	3 + 1
f.	8 + 6	7 + 7

2. Match names for the same odd numbers.

a.	3 + 4	9 + 8
b.	7 + 8	4 + 9
c.	5 − 0	0 + 7
d.	21	14 − 9
e.	8 + 9	20 + 1
f.	6 + 7	15

3. Draw a ring around each name for the number shown in the ▭

6 + 5	twelve	9 + 4	12 − 6	eight
9 + 2	9 + 9	7 + 8	3 + 3	8 + 0
5 + 7	8 + 4	8 + 5	six	14 − 7
eleven	5 + 7	6 + 9	4 + 8	2 + 6
9 + 3	3 + 4	0 + 0	2 + 4	15 − 7
6 + 7	9 + 3	4 + 9	14 − 8	17 − 9
7 + 4	ten	7 + 6	0 + 6	7 + 1
8 + 3	6 + 6	5 + 8	15 − 9	9 − 0

4. Show other names for each of these numbers:

4 + 2	7 + 2	9 − 5	nine	14 − 7

5. Now try these:

12 − 6 = ☐ 18 − ☐ = 9 17 − 9 = ☐ ☐ − 3 = 9

9 − ☐ = 5 16 − 7 = ☐ 16 − ☐ = 7 12 − ☐ = 8

☐ − 7 = 7 15 − 8 = ☐ ☐ − 8 = 8 13 − 4 = ☐

More about Counting

Using an array; counting by 3's, 5's, 10's; even and odd numbers

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60

1. Some boxes have X in them. Look at the boxes for 3, 6, 9, and 12. Put X in other boxes to show numbers for counting by 3's, beginning with 3.

2. In the boxes marked X, what even numbers are shown?

6 12 ___ ___ ___ ___ ___ ___ ___ ___

3. Some numerals have rings around them. Look at 5, 10, 15, and 20. Draw rings to show other numbers for counting by 5's, beginning with 5.

4. What odd numbers are shown by the ringed numerals?

5 ___ ___ ___ ___ ___

5. You used some of the same numbers to count by 3's and by 5's. Name them. ___ ___ ___ ___

6. Beginning with 4, count by 10's.

4 14 ___ ___ ___ ___

7. Beginning with 7, count by 10's.

7 ___ ___ ___ ___ ___

Adding and Subtracting Tens

Working with multiples of 10

1. Adding ones can help you learn to add tens.

a. || || || || |

2 ones + 7 ones = ___ ones 2 + 7 = ___

ϕ ϕ ϕ ϕ ϕ ϕ ϕ ϕ ϕ

2 tens + 7 tens = ___ tens 20 + 70 = ___

b. || || | || |

5 ones + 3 ones = ___ ones 5 + 3 = ___

ϕ ϕ ϕ ϕ ϕ ϕ ϕ ϕ

5 tens + 3 tens = ___ tens 50 + 30 = ___

c. 2 / 7, so 20 / 70 → 9 / 90

d. 4 / 2, so 40 / 20

e. 3 / 6, so 30 / 60

2. Subtracting ones can help you learn to subtract tens.

a. || ϕ ϕ ϕ

5 ones − 3 ones = ___ ones 5 − 3 = ___

ϕ ϕ ϕ ϕ ϕ

5 tens − 3 tens = ___ tens 50 − 30 = ___

b. || || || ϕ ϕ

7 ones − 2 ones = ___ ones 7 − 2 = ___

ϕ ϕ ϕ ϕ ϕ ϕ ϕ

7 tens − 2 tens = ___ tens 70 − 20 = ___

c. 5 / 3, so 50 / 30 → 2 / 20

d. 8 / 5, so 80 / 50

e. 6 / 4, so 60 / 40

3. Name the sums.

a. 20 + 50 = ___ **b.** 60 + 10 = ___ **c.** 40 + 50 = ___ **d.** 40 + 20 = ___

e. 70 + 10 = ___ **f.** 30 + 40 = ___ **g.** 60 + 20 = ___ **h.** 20 + 60 = ___

4. Name the other addends.

a. 70 − 30 = ___ **b.** 90 − 50 = ___ **c.** 60 − 10 = ___ **d.** 50 − 30 = ___

e. 80 − 70 = ___ **f.** 50 − 20 = ___ **g.** 90 − 40 = ___ **h.** 30 − 20 = ___

5. Now try these:

a. 30 + 50 − 50 = ___ **b.** 90 − 20 + 20 = ___

Adding Tens and Ones to Tens and Ones

Using expanded notation

1. You can find the sum for these addends: $32 + 4 =$?
Now find the sum for these addends:
$32 + 54 = ?$

32	⊕ ⊕ ⊕ ||
54	⊕ ⊕ ⊕ ⊕ ⊕ || ||

32, or 30 + 2
54, or 50 + 4

30 + 2
50 + 4
80 + 6, or 86,

so, 32 + 54 = ____.

2. $43 + 36 = ?$

43	⊕ ⊕ ⊕ ⊕ || |
36	⊕ ⊕ ⊕ || || ||

43, or 40 + 3
36, or 30 + 6

40 + 3
30 + 6
70 + 9, or 79,

so, 43 + 36 = ____.

3. Finish each of these additions:

a. $31 + 38 = ?$

30 + 1
30 + 8
60 + 9, or ____,

so, 31 + 38 = ____.

b. $52 + 45 = ?$

50 + 2
40 + 5
____ + ____, or ____,

so, 52 + 45 = ____.

c. $26 + 42 = ?$

20 + 6
40 + 2
____ + ____, or ____,

so, 26 + 42 = ____.

4. Show your work for each of these additions:

a. $63 + 25 = ?$

____ + ____
____ + ____
____ + ____, or ____,

so, 63 + 25 = ____.

b. $44 + 32 = ?$

so, 44 + 32 = ____.

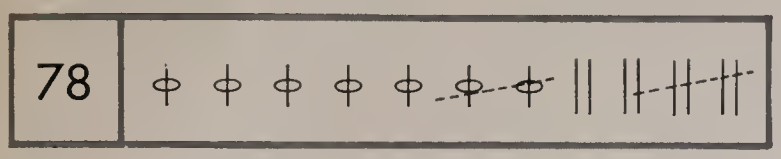
c. $71 + 28 = ?$

so, 71 + 28 = ____.

Subtracting Tens and Ones from Tens and Ones

Using expanded notation

1. You can find the other addend for this subtraction: $78 - 5 = \boxed{?}$
Now find the other addend for this subtraction:
$78 - 25 = ?$



78, or 70 + 8
25, or 20 + 5

70 + 8
20 + 5
50 + 3, or 53,

Finish the mark through five |'s.
Finish the mark through two ⫩'s.

so, 78 − 25 = ____.

2. $69 - 37 = ?$

69, or 60 + 9
37, or 30 + 7

60 + 9
30 + 7
30 + 2, or 32,

Draw marks through |'s and ⫩'s.

so, 69 − 37 = ____.

3. Finish each of these subtractions:

a. $68 - 13 = ?$

60 + 8
10 + 3
50 + 5, or ____,

so, 68 − 13 = ____.

b. $96 - 54 = ?$

90 + 6
50 + 4
____ + ____, or ____,

so, 96 − 54 = ____.

c. $85 - 32 = ?$

80 + 5
30 + 2
____ + ____, or ____,

so, 85 − 32 = ____.

4. Show your work for each of these:

a. $84 - 34 = ?$

____ + ____
____ + ____
____ + ____, or ____,

so, 84 − 34 = ____.

b. $73 - 41 = ?$

so, 73 − 41 = ____.

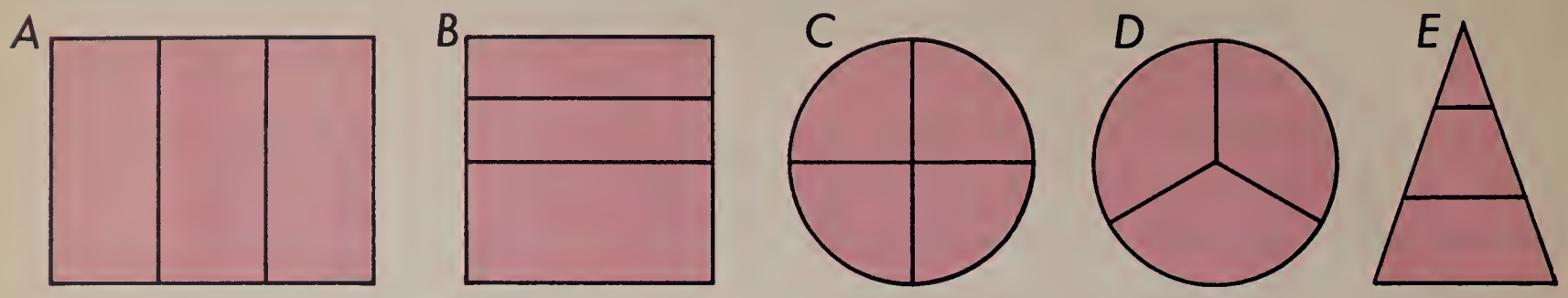
c. $69 - 42 = ?$

so, 69 − 42 = ____.

Thirds and One Third of a Single Thing

Identifying one third of a single thing

1. Think about each of these pictures:



a. Write Yes or No in each empty box of the chart below.

Picture	A	B	C	D	E
Does the picture show 3 parts?					
Do all parts seem to be the same size?					

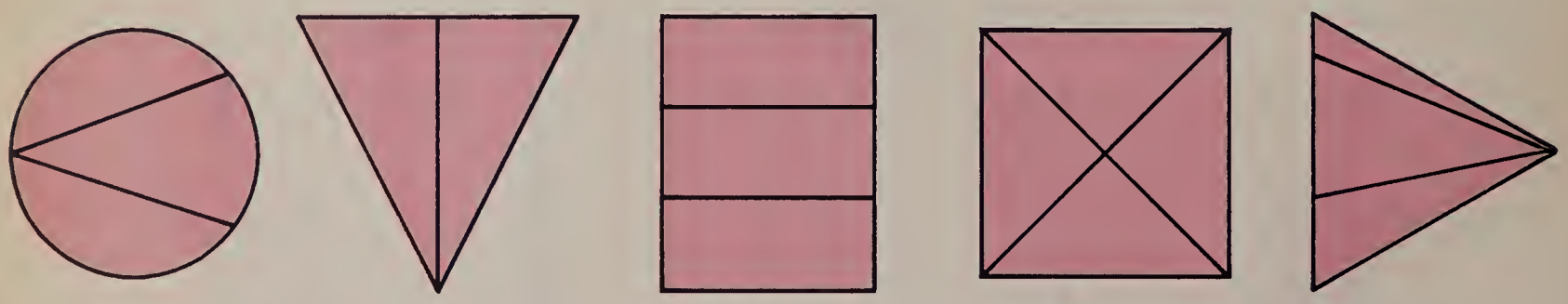
b. Draw a ring around each picture above that shows 3 parts which seem to be all the same size.

Each of these pictures shows thirds. Each part of the picture is one third of it.

We may name one third by writing $\frac{1}{3}$.

c. For each picture above that shows thirds, write $\frac{1}{3}$ on each one third.

2. Now think about each of these pictures:



a. Write $\frac{1}{3}$ on each part of a picture that shows thirds.

b. Write $\frac{1}{4}$ on each part of a picture that shows fourths.

c. Write $\frac{1}{2}$ on each part of a picture that shows halves.

Combining Sets of the Same Size

Finish the work for each picture.

1.

There are 2 sets of dolls.

There are 3 dolls in each set.

There are 6 dolls in all.

2 sets of 3, or 6

2.

2 sets of hats

4 hats in each set

8 hats in all

2 sets of 4, or ____

3.

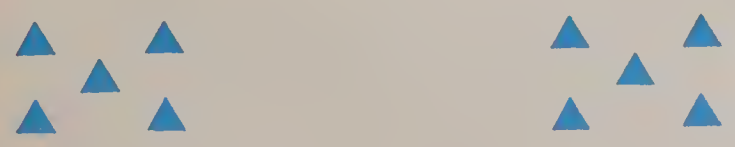
____ sets of shoes

____ shoes in each set

____ shoes in all

____ sets of ____, or ____

4.



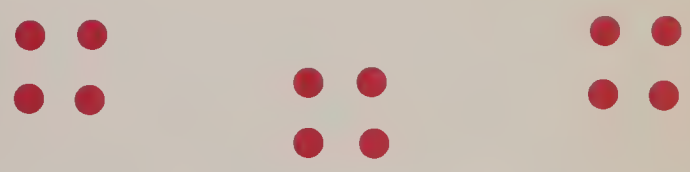
____ sets

____ in each set

____ in all

____ sets of ____, or ____

5.



____ sets

____ in each set

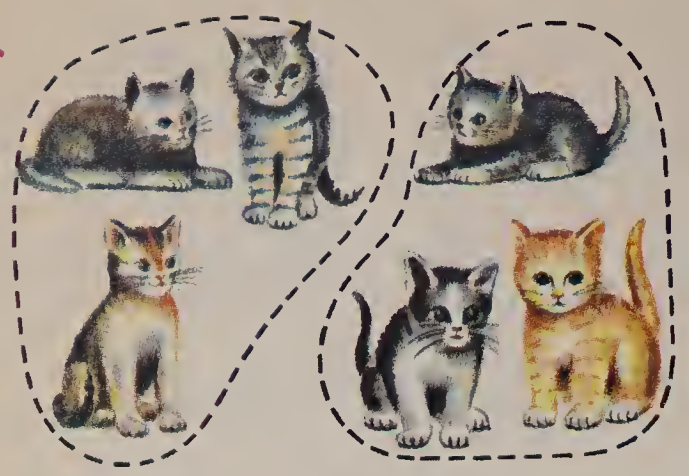
____ in all

____ sets of ____, or ____

Separating into Sets of the Same Size

Finish the work for each picture.

1.



There are 6 kittens in all.

Draw rings to show sets of 3.

Now you have 2 sets of kittens.

There are 3 kittens in each set.

6; 2 sets of 3

2.

6 ducks in all

Draw rings to show sets of 2.

There are 3 sets.

6; 3 sets of ___

3.

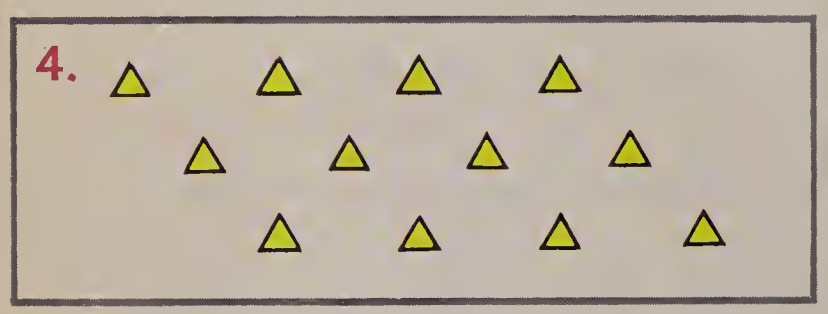
___ pigs in all

Draw rings to show sets of 3.

There are ___ sets.

___; ___ sets of ___

4.

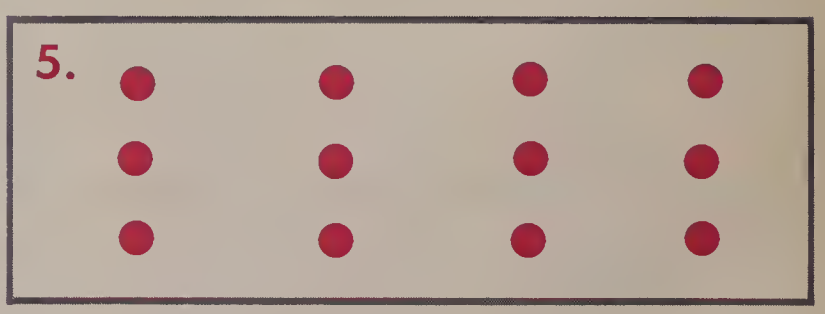


___ in all

Draw rings to show sets of 4.

___; ___ sets of ___

5.



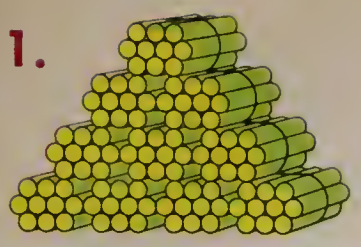
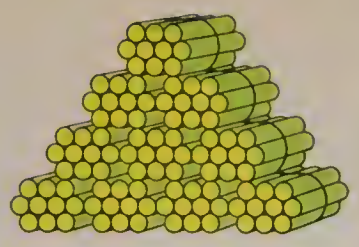
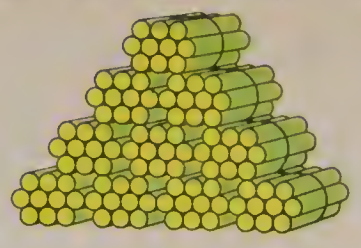
___ in all

Draw rings to show sets of 3.

___; ___ sets of ___

Whole Numbers Greater than 200

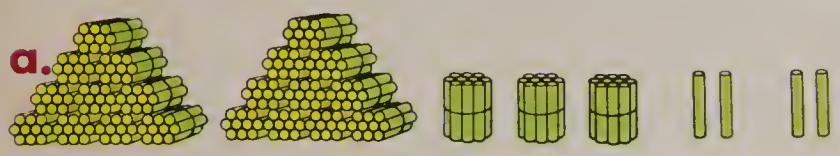
Base ten and place value; writing numerals through 999; inequalities

1.  10 tens  10 tens  10 tens

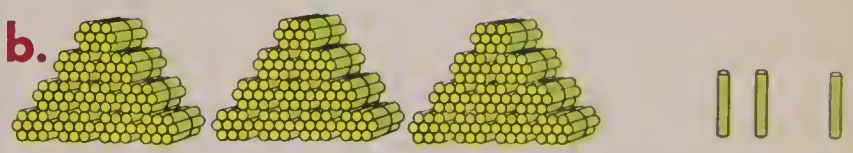
We may think of 10 tens as 1 hundred.

We may group 30 's as above to show 3 hundreds.

2. We may show whole numbers greater than 200 this way:

a. 

hundreds	tens	ones
2	3	4

b. 

hundreds	tens	ones

3. Finish each of these:

a. 392 = 3 hundreds + 9 tens + 2 ones

b. 634 = ___ hundreds + ___ tens + ___ ones

c. 250 = ___ hundreds + ___ tens + ___ ones

d. 408 = ___ hundreds + ___ tens + ___ ones

e. 700 = ___ hundreds + ___ tens + ___ ones

4. Name the next four whole numbers.

a. 400 401 402 403 ___

b. 623 ___ ___ ___ ___

c. 375 ___ ___ ___ ___

d. 518 ___ ___ ___ ___

e. 297 ___ ___ ___ ___

f. 489 ___ ___ ___ ___

5. Write G or L in each ring.

a. 546 (G) 283 **b.** 374 ( ) 629 **c.** 451 ( ) 785 **d.** 783 ( ) 387

e. 562 ( ) 526 **f.** 607 ( ) 670 **g.** 954 ( ) 945 **h.** 869 ( ) 861

Using Addition and Subtraction

Problem-solving; A. and S. practice

Write your work.

1. Lois had 16 flowers in one of her flower beds. She had 9 other flowers in another flower bed. How many more flowers were there in one flower bed than in the other?

_____ ___ flowers

2. In another flower bed Lois had 8 red flowers and 7 white ones. How many flowers did Lois have in this flower bed?

_____ ___ flowers

3. Lois had 30 flower seeds in one box and 20 more in another box. How many flower seeds were in these two boxes?

_____ ___ seeds

4. Lois picked 8 of the flowers from the flower bed shown in the picture. How many flowers were left in that flower bed?

_____ ___ flowers

5. Lois planted some of the 50 seeds she had. Then she had 20 left. How many of the flower seeds did she plant?

_____ ___ seeds

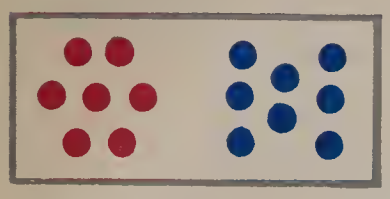
● Show the sum or the other addend.

6.	17 − 8 = ___	9 + 9 = ___	15 − 7 = ___	5	4	6
				4	5	3
7.	6 + 9 = ___	8 + 8 = ___	14 − 9 = ___	5	3	5
8.	7 + 6 = ___	16 − 9 = ___	9 + 6 = ___	3	3	4
				5	4	3
9.	17 − 9 = ___	15 − 8 = ___	12 − 4 = ___	5	3	4
10.	9 + 4 = ___	16 − 7 = ___	14 − 7 = ___	4	3	3
				4	6	3
11.	8 + 3 = ___	14 − 6 = ___	7 + 5 = ___	2	2	8

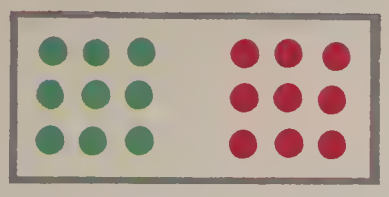
Do You Know?

1. Finish the work for these dot pictures:

a.



b.



___; 7 and ___ ___; 9 and ___

___; ___ and 7

2. Finish each of these:

a. One part of a set of 16 is 8. The other part is ___.

b. One part of a set of 17 is 9. The other part is ___.

3. Finish to show sets of A. and S. facts.

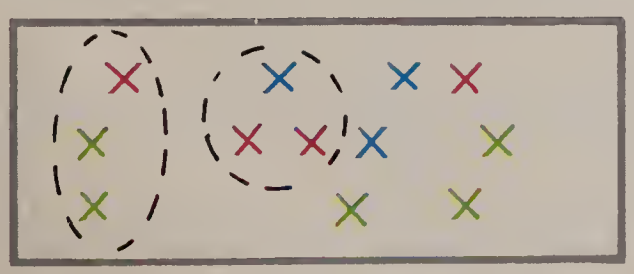
a. 9 + 7 = ___ **b.** 8 + 9 = ___

_____ _____

_____ _____

_____ _____

4. Finish the work.



___; ___ sets of 3

5. Tom wants a set of 12 books. He now has 8 books. How many more books does he need?

_____ ___ books

6. Finish the work.

a. 32 + 46 = ?

$$\begin{array}{r} 30 + 2 \\ 40 + 6 \\ \hline \end{array}$$

___ + ___, or ___

so, 32 + 46 = ___.

b. 79 − 45 = ?

$$\begin{array}{r} 70 + 9 \\ 40 + 5 \\ \hline \end{array}$$

___ + ___, or ___

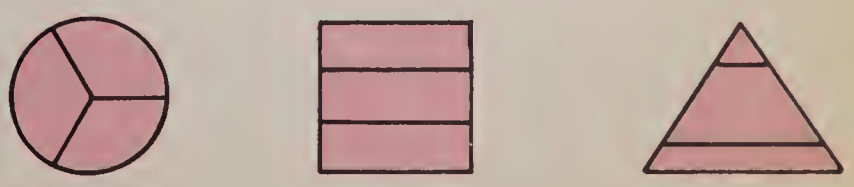
so, 79 − 45 = ___.

7. Write the answers.

a. 15 − 7 = ___ **c.** 18 − 9 = ___

b. 9 + 8 = ___ **d.** 8 + 8 = ___

8. Draw a ring around each picture that shows thirds.



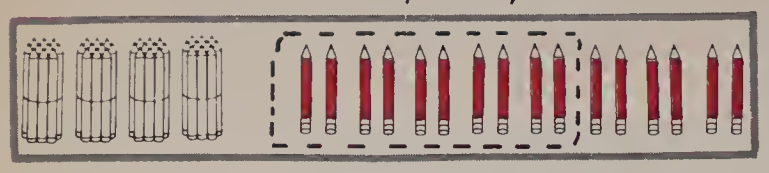
To the teacher: In the lesson plan for teaching page 73, see Special Instructions regarding pages 74–93 and 94–96.

Renaming to Show More Tens

Preparation for renaming in addition

1. Finish writing about these pictures:

Number of pencils, 56



40 + ___

Number of pencils, 56

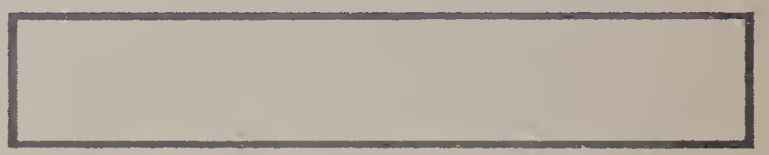
50 + ___

Two names for the number 56 are 40 + ___ and 50 + ___.

The number named by 40 + 16 may be renamed 50 + ___.

2. Show the same number by drawing 1 more ⊕ and 10 fewer |'s.

60 + 13



70 + 3

Two names for the number 73 are 60 + ___ and 70 + ___.

The number named by 60 + ___ may be renamed ___ + ___.

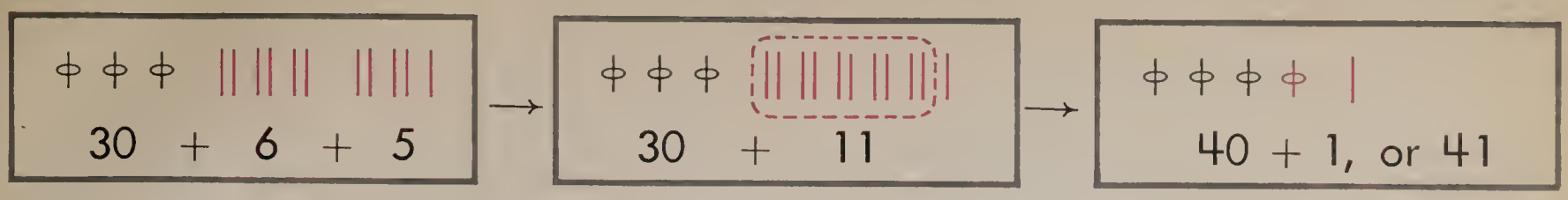
3. Finish this chart for numbers renamed to show more tens.

50 + 12	60 + 2	62
30 + 19	___ + ___	
10 + 15	___ + ___	
80 + 11	___ + ___	
60 + 16	___ + ___	
40 + 13	___ + ___	
70 + 18	___ + ___	

Renaming in Addition

Renaming to show 1 more ten; maintenance

1. 36 + 5 = ?



36 + 5 = 41

2. Finish the work for each of the additions.

a. 27 + 8 = ?

$$\begin{array}{r} 20 + 7 \\ \quad\;\; 8 \\ \hline \end{array}$$

20 + 15, or 30 + 5

30 + 5, or 35,

so, 27 + 8 = 35.

b. 59 + 4 = ?

$$\begin{array}{r} 50 + 9 \\ \quad\;\; 4 \\ \hline \end{array}$$

50 + 13, or ___ + ___

60 + 3, or ___,

so, 59 + 4 = ___.

c. 38 + 6 = ?

$$\begin{array}{r} 30 + 8 \\ \quad\;\; 6 \\ \hline \end{array}$$

30 + 14, or ___ + ___

40 + ___, or ___,

so, 38 + 6 = ___.

d. 45 + 9 = ?

$$\begin{array}{r} 40 + 5 \\ \quad\;\; 9 \\ \hline \end{array}$$

40 + ___, or ___ + ___

___ + ___, or ___,

so, 45 + 9 = ___.

e. 17 + 6 = ?

$$\begin{array}{r} 10 + 7 \\ \quad\;\; 6 \\ \hline \end{array}$$

10 + ___, or ___ + ___

___ + ___, or ___,

so, 17 + 6 = ___.

f. 84 + 8 = ?

$$\begin{array}{r} 80 + 4 \\ \quad\;\; 8 \\ \hline \end{array}$$

80 + ___, or ___ + ___

___ + ___, or ___,

so, 84 + 8 = ___.

- Write the answers.

1.	8 + 5 = ___	6 + 9 = ___	15 − 7 = ___	6 + 6 = ___
2.	12 − 4 = ___	17 − 8 = ___	3 + 7 = ___	14 − 6 = ___
3.	5 + 7 = ___	7 + 8 = ___	18 − 9 = ___	9 + 4 = ___
4.	16 − 8 = ___	11 − 6 = ___	8 + 9 = ___	14 − 9 = ___

More about Renaming in Addition

Renaming to show 1 more ten

Show your work for each of these:

1. 58 + 6 = ?	**2.** 37 + 4 = ?	**3.** 26 + 8 = ?
4. 47 + 5 = ?	**5.** 84 + 9 = ?	**6.** 59 + 3 = ?
7. 28 + 7 = ?	**8.** 39 + 5 = ?	**9.** 57 + 9 = ?
10. 68 + 4 = ?	**11.** 47 + 6 = ?	**12.** 78 + 5 = ?

Renaming to Show More Ones

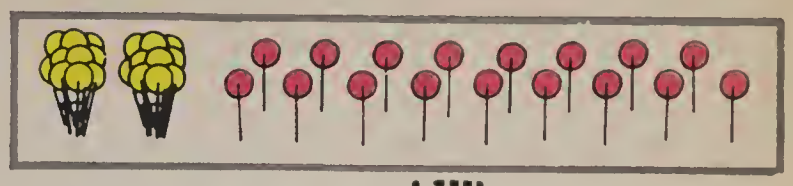
Preparation for renaming in subtraction

1. Finish writing about these pictures:

Number of lollipops, 37

$30 + 7$

Number of lollipops, 37



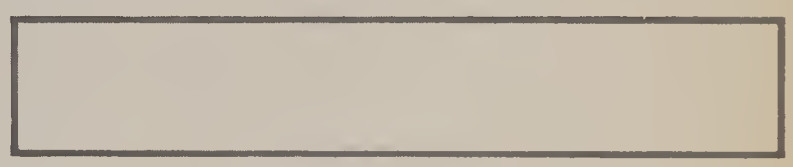
$20 + 17$

Two names for the number 37 are $30 + 7$ and $20 + 17$.

The number named by $30 + 7$ may be renamed $20 + ____$.

2. Show the same number by drawing 1 fewer ϕ and 10 more |'s.

$50 + 4$



$40 + 14$

Two names for the number 54 are $50 + ____$ and $40 + ____$.

The number named by $50 + ____$ may be renamed $____ + ____$.

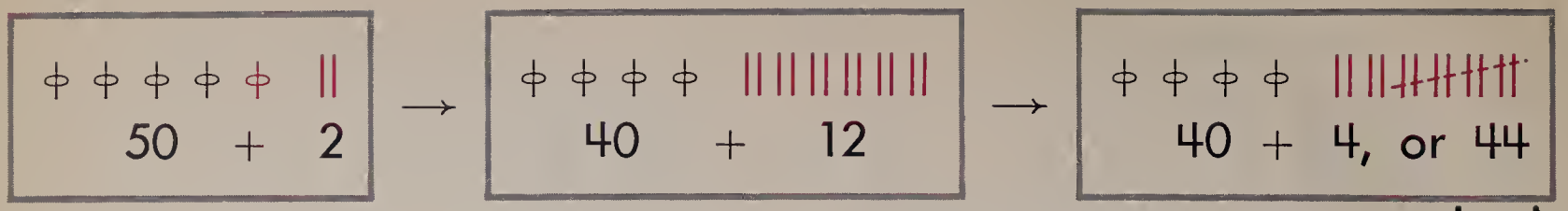
3. Finish the chart for numbers renamed to show more ones.

63	$60 + 3$	$50 + 13$
28	$____ + ____$	$____ + ____$
45	$____ + ____$	$____ + ____$
81	$____ + ____$	$____ + ____$
59	$____ + ____$	$____ + ____$
72	$____ + ____$	$____ + ____$
96	$____ + ____$	$____ + ____$

Renaming in Subtraction

Renaming to show 10 more ones

1. 52 − 8 = ?



52 − 8 = 44

2. Finish the work for each of the subtractions.

a. 73 − 5 = ?

70 + 3
5

60 + 13
5

60 + 8, or 68,

so, 73 − 5 = 68.

b. 65 − 7 = ?

60 + 5
7

50 + 15
7

50 + 8, or ___,

so, 65 − 7 = ___.

c. 81 − 9 = ?

80 + 1
9

70 + 11
9

70 + ___, or ___,

so, 81 − 9 = ___.

d. 54 − 8 = ?

50 + 4
8

40 + 14
8

40 + ___, or ___,

so, 54 − 8 = ___.

e. 45 − 6 = ?

40 + 5
6

30 + 15
6

___ + ___, or ___,

so, 45 − 6 = ___.

f. 33 − 7 = ?

30 + 3
7

20 + 13
7

___ + ___, or ___,

so, 33 − 7 = ___.

g. 72 − 5 = ?

70 + 2
5

60 + 12
5

___ + ___, or ___,

so, 72 − 5 = ___.

h. 53 − 6 = ?

50 + 3
6

___ + ___

___ + ___, or ___,

so, 53 − 6 = ___.

More about Renaming in Subtraction

Renaming to show 10 more ones

Show your work for each of these:

1. 64 − 7 = ?

2. 35 − 8 = ?

3. 41 − 6 = ?

4. 53 − 9 = ?

5. 82 − 5 = ?

6. 75 − 7 = ?

7. 66 − 9 = ?

8. 34 − 5 = ?

Renaming to show 1 more ten or 10 more ones

Finish each of these. Show your work.

1. 47 + 8 = ?

2. 24 + 9 = ?

3. 58 + 6 = ?

4. 73 − 5 = ?

5. 41 − 8 = ?

6. 59 − 4 = ?

7. 62 − 9 = ?

8. 63 + 5 = ?

9. 85 − 6 = ?

10. 36 + 7 = ?

Problem-solving

Write your work.

1. Eddie and his sister Ann sold plants to help their father. One day Eddie sold 18 plants. Nine were of one kind. How many plants of other kinds did Eddie sell that day?

_____ ___ plants

2. One day Eddie's sister sold 7 plants of one kind and 8 plants of other kinds. How many plants in all did Eddie's sister sell that day?

_____ ___ plants

3. Another day Eddie's father sold 30 plants at one time. Then he sold 20 more plants. How many plants in all did Eddie's father sell that day?

_____ ___ plants

4. One day Eddie started with 14 plants of the same kind. He wanted to sell them that day. By 10 o'clock that morning, he had sold 8 of them. How many of the 14 plants were left to sell that day?

_____ ___ plants

5. One morning Eddie sold 13 plants. Ann sold 9 plants. How many more plants did Eddie sell that morning than his sister did?

_____ ___ plants

6. One day Eddie and his father potted some plants to sell. Eddie's father potted 40 plants and Eddie potted 20. How many more plants did Eddie's father put in pots than Eddie did?

_____ ___ plants

Do You Remember?

1. Finish these:

a. 8 + ___ = 17

b. 16 − ___ = 9

c. 7 + 8 − 8 = ___

d. 18 − 9 + 9 = ___

e. ___ + ___ = 0

f. ___ − 0 = 10

2. Write the answers.

a. 6 + 9 = ___

b. 17 − 9 = ___

c. 8 + 8 = ___

d. 15 − 7 = ___

e. 4 + 5 + 4 = ___

f. 6 + 3 + 5 = ___

3. Write the missing numerals.

a. 13, 23, 33, ___, ___

b. 38, 48, ___, ___, ___

4. What are the next three whole numbers?

a. 324, ___, ___, ___

b. 567, ___, ___, ___

c. 298, ___, ___, ___

5. Write = or ≠ in each ring.

a. 16 − 16 ◯ 17 − 17

b. 0 + 15 ◯ 14 + 0

c. 18 − 9 ◯ 9 + 9

d. 15 − 7 ◯ 16 − 8

e. 5 + 0 ◯ 15 − 9

f. 8 + 8 ◯ 17 − 0

g. 16 − 7 ◯ 17 − 8

6. Ellen had twelve buttons on her dress. She lost some of them. Nine were left. How many buttons were lost?

_____ ___ buttons

7. Kevin had some old toys. He made six more toys and then had 15. How many old toys did Kevin have at first?

_____ ___ toys

8. Betty had 14 jacks in all for a game. Carol had only 8. Carol had how many fewer jacks than Betty had?

_____ ___ jacks

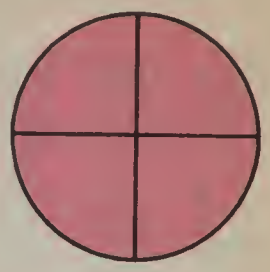
Using Fractions with a Single Thing

Identifying and representing halves, thirds, fourths

1. Does the picture at the right show fourths? _____

Is each part one fourth of the picture? _____

Write $\frac{1}{4}$ on each one fourth of the picture.



2. The picture below will help you to learn more about fourths.

One fourth of this picture is red.

One fourth = $\frac{1}{4}$

Two fourths of this picture are red.

Two fourths = $\frac{2}{4}$

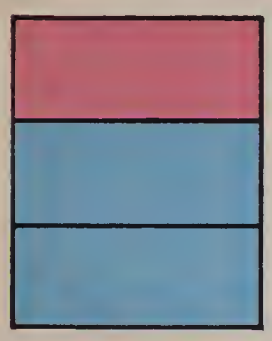
Three fourths of this picture are red.

Three fourths = $\frac{3}{4}$

Four fourths of this picture are red.

Four fourths = $\frac{4}{4}$

3. This picture will help you to learn more about thirds.

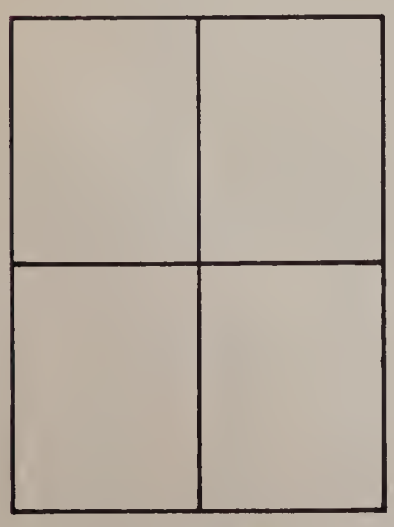


One third of this picture is red. One third = $\frac{1}{3}$

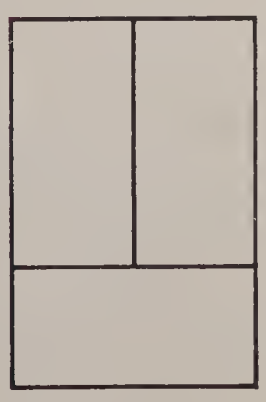
Two thirds of this picture are blue. Two thirds = $\frac{2}{3}$

Three thirds of this picture are in color. Three thirds = $\frac{3}{3}$

4. Color $\frac{3}{4}$ of this picture green.



5. Color $\frac{2}{3}$ of this picture red.



6. Try this one! Color $\frac{2}{2}$ of this picture blue.

Arrays

1. Think about this picture of rows of cans.

There are 3 rows of cans.

There are ____ cans in each row.

This picture shows an array.

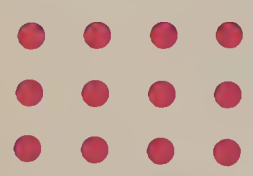
2. Now think about this picture of rows of cans.

There are ____ rows of cans.

Are there the same number of cans in each of the rows? _____

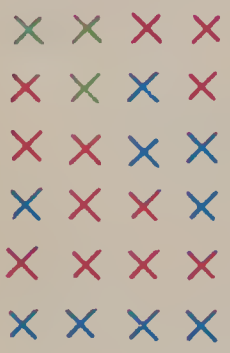
This is not a picture of an array. In an array there are the same number of things in each row.

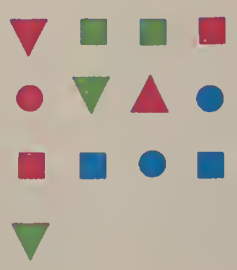
3. Draw a ring around each picture that shows an array.

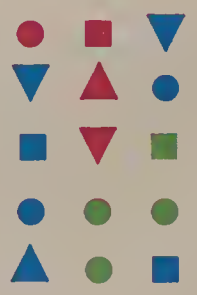
a. 

b.

c.

d. 

e. 

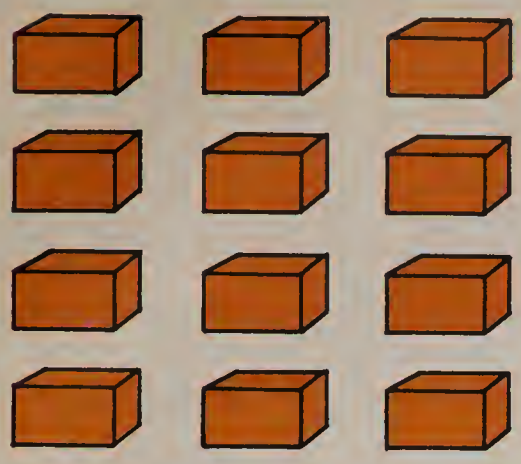
f. 

4. Finish this chart about the arrays shown in 3.

Array	a	b	d	f
Number of rows of things shown	3			
Number of things shown in each row	4			

More about Arrays

1. This shows an array of boxes.



There are 4 rows of boxes.

There are 3 boxes in each row.

This is a 4 by 3 array. There are 12 boxes in this 4 by 3 array.

2. This shows an array of bowls.

There are ___ rows of bowls.

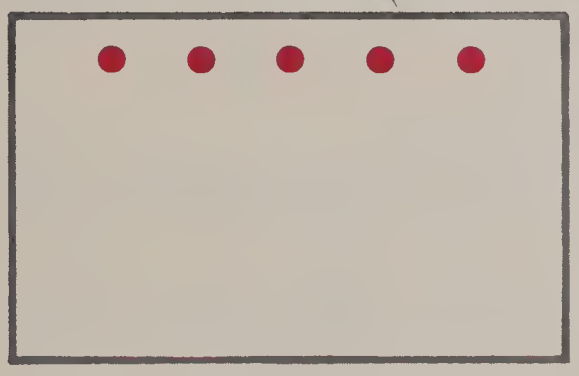
There are ___ bowls in each row.

This is a ___ by ___ array. There are ___ bowls in this ___ by ___ array.

3. Finish to make a 4 by 5 array of dots.

5 in each row

4 rows

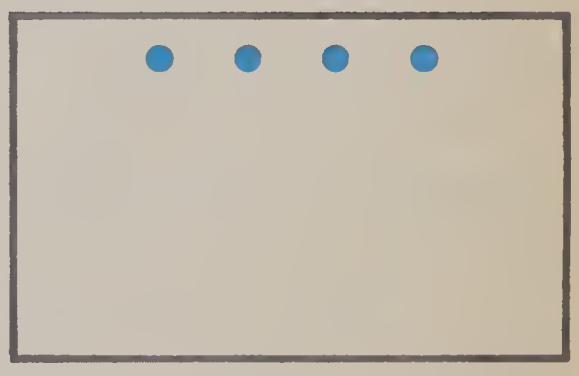


There are _____ dots in this 4 by 5 array.

4. Finish to make a 5 by 4 array of dots.

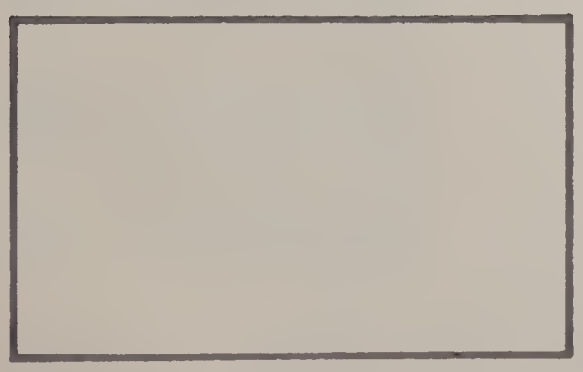
___ in each row

___ rows



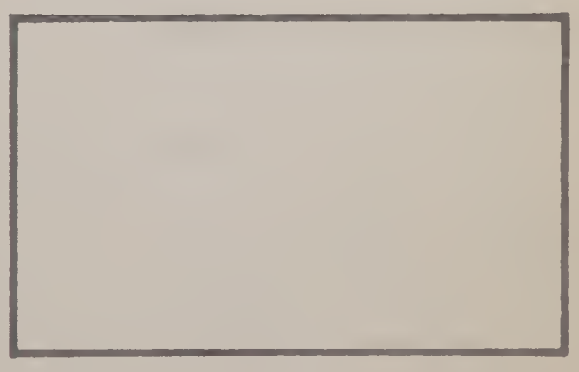
There are _____ dots in this 5 by 4 array.

5. Show a 3 by 6 array of X's.



There are _____ X's in this 3 by 6 array.

6. Show a 6 by 3 array of X's.

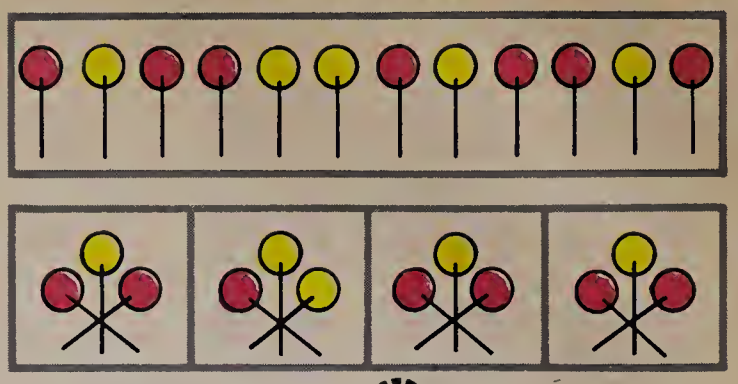


There are _____ X's in this 6 by 3 array.

Using Fractions with a Set of Things

Subsets of the same size; recognizing the fraction number

1. Ruth had 12 lollipops: ⟶



She grouped them like this: →

Ruth grouped the lollipops in 4 sets. There were 3 lollipops in each set. Each set is $\frac{1}{4}$ of the 12 lollipops.

We may write this: $\frac{1}{4}$ of 12 lollipops is 3 lollipops.

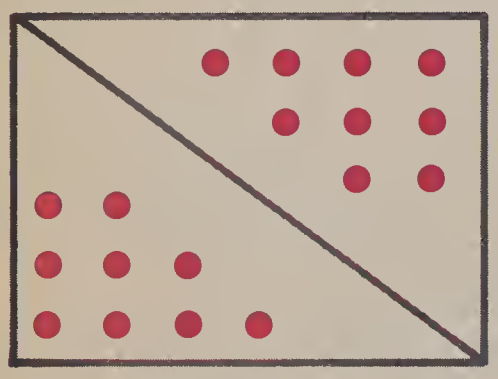
2. Jack grouped some candy bars like this: ⟶

Jack had ___ candy bars in all. He grouped them in ___ sets. There were ___ candy bars in each set. Each set is $\frac{1}{3}$ of the 15 candy bars.

We may write: $\frac{1}{3}$ of ___ candy bars is ___ candy bars.

3. Finish writing about each of these pictures:

a.



2 sets of dots

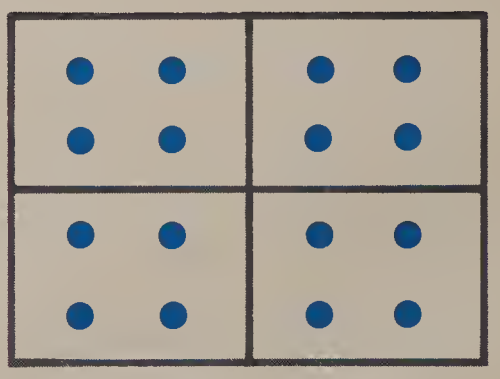
9 dots in each set

18 dots in all

Each set is $\frac{1}{2}$ of 18 dots.

$\frac{1}{2}$ of ___ dots is ___ dots.

b.



___ sets of dots

___ dots in each set

___ dots in all

Each set is $\frac{1}{4}$ of ___ dots.

___ of ___ dots is ___ dots.

Using Fractions with an Array

Recognizing the fraction number; each row a subset of the same size

1. Here is a way to write about parts of arrays.

a.

This shows a 2 by 5 array.

2 rows of apples

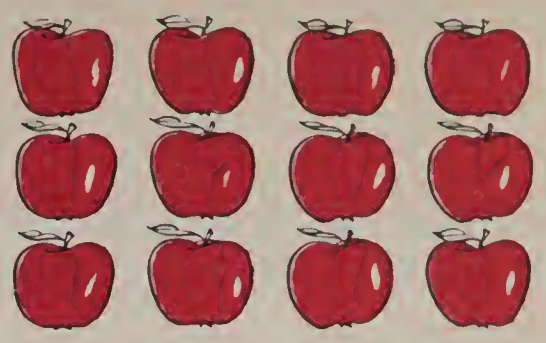
5 apples in each row

10 apples in the array

Each row is $\frac{1}{2}$ of the 10 apples.

$\frac{1}{2}$ of ___ apples is ___ apples.

b.



___ rows of apples

___ apples in each row

___ apples in the ___ by ___ array

Each row is $\frac{1}{3}$ of the ___ apples.

___ of ___ apples is ___ apples.

2. Now look at this picture of a 4 by 3 array:

There are ___ rows of dots. There are ___ dots in each row. There are ___ dots in the array. Each row is $\frac{1}{4}$ of the ___ dots. $\frac{1}{4}$ of ___ dots is ___ dots.

3.

In this picture of an array, there are ___ rows of boxes. There are ___ boxes in each row.

This shows a ___ by ___ array.

There are ___ boxes shown in the array.

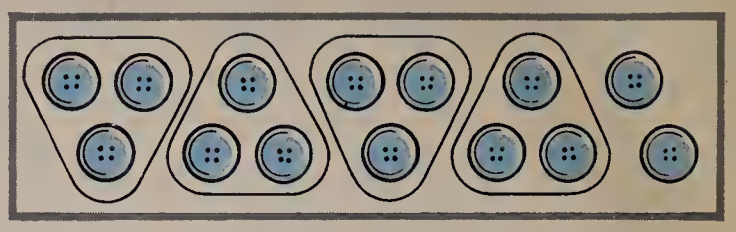
Each row shows $\frac{1}{4}$ of the ___ boxes.

$\frac{1}{4}$ of ___ boxes is ___ boxes.

How Many Are Left Over?

1. Mary had in all 14 buttons like these shown in the picture.

She wanted to group the buttons in sets of 3. ⟶



Mary used ____ of the buttons to make ____ sets of 3. There were ____ buttons left over.

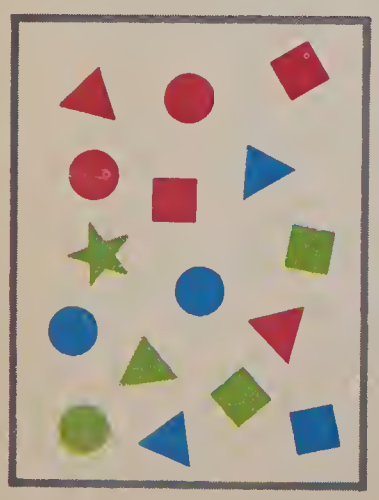
We may write this: 14; ____ sets of 3, and ____ left over.

2. Don had 15 stamps like these shown in the picture. He wanted to group them in sets of 4. Finish drawing rings to show sets of 4.

Don used ____ stamps to make ____ sets of 4. There were ____ stamps left over.

We may write: 15; ____ sets of 4, and ____ left over.

3.



There are ____ shapes in all shown in the picture.

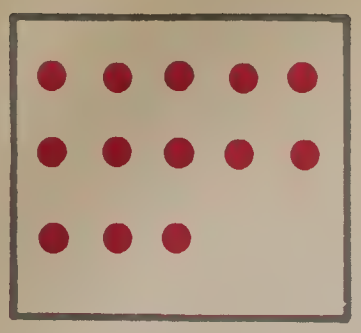
Draw rings to make sets of 5.

You used ____ shapes to make ____ sets of 5.

There are ____ shapes left over. So, we may write: 16; ____ sets of 5, and ____ left over.

More about How Many Are Left Over

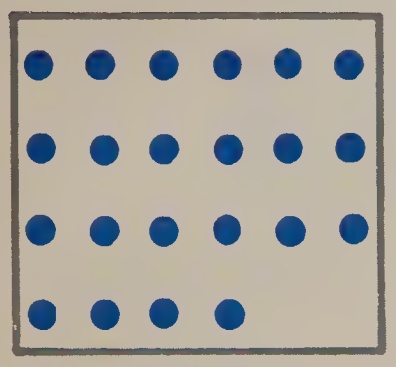
Pre-division ideas

1. 

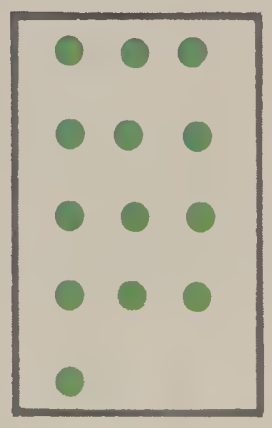
There are ___ dots in this picture. There are ___ rows with ___ dots in each row. There is another row with ___ dots.

We may write: 13; 2 sets of 5, and ___ left over.

2. Write about each of these dot pictures:

a. 

___; ___ sets of ___, and ___ left over.

b. 

___; ___ sets of ___, and ___ left over.

3. Finish each of these. Draw dot pictures if you need to.

a. 14; ___ sets of 3, and ___ left over.

b. 18; ___ sets of 4, and ___ left over.

c. 13; ___ sets of 2, and ___ left over.

d. 17; ___ sets of 6, and ___ left over.

e. 20; ___ sets of 5, and ___ left over.

Enrichment

● Look, think, and try!

a. $6 + 3 + \square = 14$

b. $7 + \square + 2 = 12$

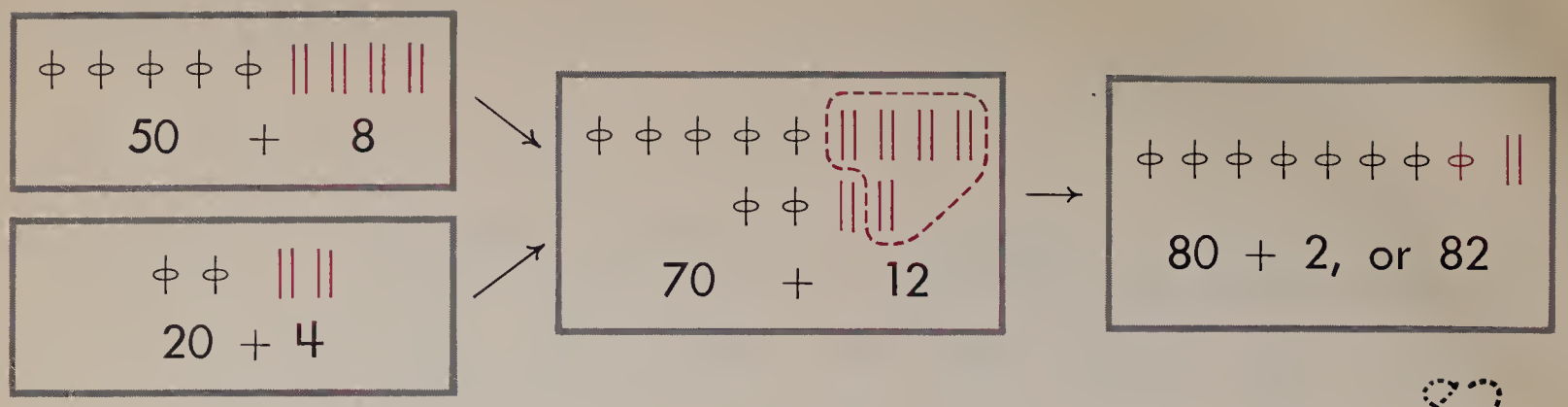
c. $\square + 4 + 5 = 15$

d. $8 + \square + 8 = 16$

More Renaming in Addition

Using expanded notation

1. 58 + 24 = ?



58 + 24 = 82

2. Finish the work for each of the additions.

a. 58 + 24 = ?

50 + 8
20 + 4

70 + 12, or 80 + 2

80 + 2, or ____,

so, 58 + 24 = ____.

b. 47 + 19 = ?

40 + 7
10 + 9

50 + 16, or ____ + ____

60 + ____, or ____,

so, 47 + 19 = ____.

c. 36 + 57 = ?

30 + 6
50 + 7

80 + 13, or ____ + ____

90 + ____, or ____,

so, 36 + 57 = ____.

d. 17 + 65 = ?

10 + 7
60 + 5

70 + 12, or ____ + ____

80 + ____, or ____,

so, 17 + 65 = ____.

e. 34 + 49 = ?

30 + 4
40 + 9

____ + ____, or ____ + ____

____ + ____, or ____,

so, 34 + 49 = ____.

f. 48 + 26 = ?

40 + 8
20 + 6

____ + ____, or ____ + ____

____ + ____, or ____,

so, 48 + 26 = ____.

3. Show your work for each of the additions.

a. 27 + 69 = ?

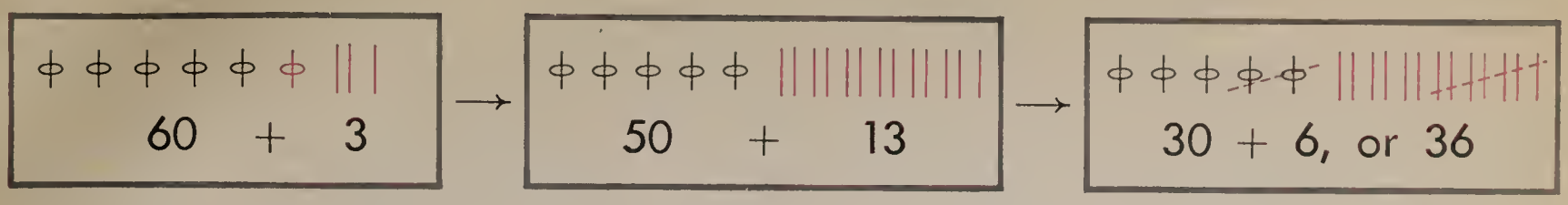
b. 38 + 45 = ?

c. 54 + 38 = ?

More Renaming in Subtraction

Using expanded notation

1. 63 − 27 = ?



63 − 27 = 36

2. Finish the work for each of the subtractions.

a. 72 − 48 = ?

70 + 2
40 + 8

60 + 12
40 + 8
20 + 4, or ____,

so, 72 − 48 = ____.

b. 63 − 27 = ?

60 + 3
20 + 7

50 + 13
20 + 7
30 + 6, or ____,

so, 63 − 27 = ____.

c. 54 − 39 = ?

50 + 4
30 + 9

40 + 14
30 + 9
10 + 5, or ____,

so, 54 − 39 = ____.

d. 81 − 54 = ?

80 + 1
50 + 4

____ + ____
____ + ____
____ + ____, or ____,

so, 81 − 54 = ____.

3. Show your work for each of the subtractions.

a. 62 − 36 = ?

b. 94 − 45 = ?

c. 51 − 19 = ?

d. 73 − 28 = ?

Working with Addition and with Subtraction

Using expanded notation

Finish the work to show the addition or subtraction.

1. $27 + 48 = ?$

2. $69 + 17 = ?$

3. $54 + 35 = ?$

4. $52 - 34 = ?$

5. $78 - 26 = ?$

6. $64 - 15 = ?$

7. $83 - 48 = ?$

8. $49 + 24 = ?$

9. $91 - 37 = ?$

10. $16 + 78 = ?$

Using Addition and Subtraction

Problem-solving; A. and S. practice

1. Paul and Patty are helping their father. Paul carried 9 blocks and Patty carried 9 blocks. How many blocks did Paul and Patty carry in all?

_____ ___ blocks

2. Patty carried 15 bricks and Paul carried 8 bricks. How many bricks did Paul and Patty carry?

_____ ___ bricks

3. Father needed more blocks. Paul carried 16 blocks and Patty carried 9 blocks. How many more blocks did Paul carry this time than Patty?

_____ ___ blocks

4. Father had 50 bricks at first. He used 40 of them. How many bricks did he have left?

_____ ___ bricks

Write the answers.

5.	16 − 7 = ___	8 + 9 = ___	6 + 8 = ___	3 + 4 + 5 = ___
6.	18 − 9 = ___	7 + 8 = ___	15 − 6 = ___	6 + 3 + 5 = ___
7.	7 + 7 = ___	14 − 8 = ___	8 + 8 = ___	7 + 0 + 9 = ___
8.	13 − 9 = ___	9 + 8 = ___	17 − 8 = ___	2 + 6 + 3 = ___
9.	8 + 7 = ___	6 + 9 = ___	14 − 6 = ___	5 + 3 + 5 = ___

Do You Know?

1. Finish each of these:

a. One part of a set of 12 is 5.

The other part is ____.

b. One part of a set of 17 is 9.

The other part is ____.

c. One addend of 14 is 6.

The other addend is ____.

d. One addend of 15 is 7.

The other addend is ____.

2. Finish to show sets of A. and S. facts.

a. 7 + 9 = ____ **b.** 8 + 5 = ____

_____ _____

_____ _____

_____ _____

3. Finish each of these:

a. 8 + ____ = 16 **b.** 15 − ____ = 6

c. ____ + 9 = 17 **d.** ____ − 6 = 8

e. 9 + 7 − 7 = ____

f. 16 − 9 + 9 = ____

g. 9 + ____ = 9 **h.** 7 − ____ = 7

4. Show the work.

a. 63 + 5 = ?

b. 32 + 54 = ?

c. 59 − 7 = ?

d. 78 − 42 = ?

6. Write the answers.

a. 6 + 6 = ____ **b.** 8 + 7 = ____ **c.** 13 − 4 = ____

d. 16 − 9 = ____ **e.** 5 + 8 = ____ **f.** 17 − 8 = ____

g. 8 + 9 = ____ **h.** 18 − 9 = ____ **i.** 9 + 7 = ____

j. 2 + 5 + 4 = ____ **k.** 6 + 2 + 7 = ____ **l.** 5 + 4 + 5 = ____

Do You Know?

1. Bill had 7 blue cars, 2 green cars, and 5 red cars. How many cars did Bill have?

_____ ___ cars

2. Kathy lost some of her doll's hats. She had 13 hats. This morning she could find only 9 of them. Kathy lost how many hats?

_____ ___ hats

3. John and Sue went away with Mother and Father. John has 8 pictures to show his friends. Sue has 15 pictures. Sue has how many more pictures than John?

_____ ___ pictures

4. Betty had 12 pieces of candy. She ate 4 pieces and put the others in a dish. How many pieces of candy did Betty put in the dish?

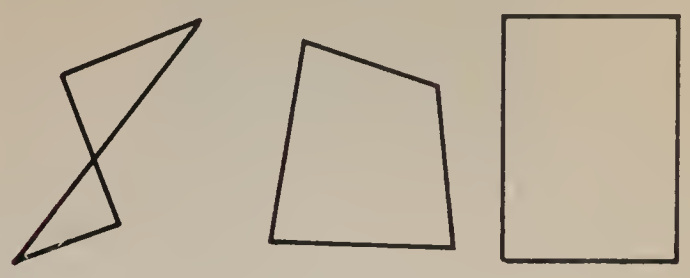
_____ ___ pieces

5. Write G or L or = in the ring.

a. 7 + 5 ◯ 6 + 9

b. 189 ◯ 819

6. Draw a ring around each of the pictures showing a right angle.



7. Finish each of these:

a. 1 quarter, or ___ cents

b. 1 dollar bill, or ___ dimes

c. 1 quart, or ___ pints

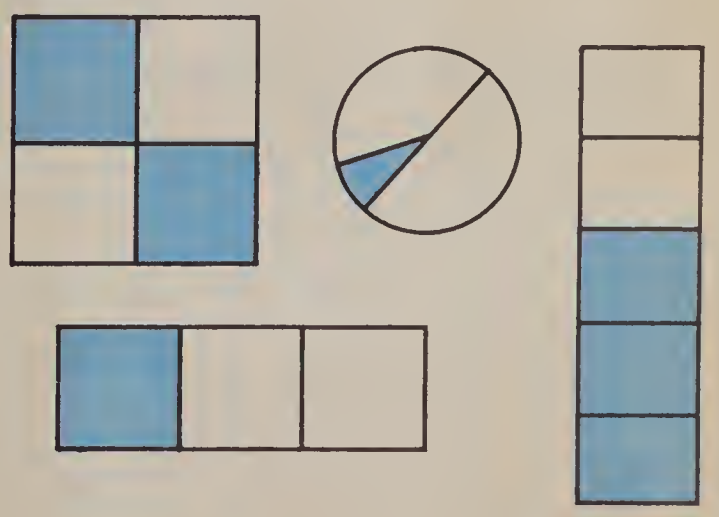
d. 1 hundred 7 tens 5 ones, or ___

8. What are the next three whole numbers?

a. 98 99 ___ ___ ___

b. 157 158 ___ ___ ___

9. Draw a ring around the picture having $\frac{1}{3}$ in color.



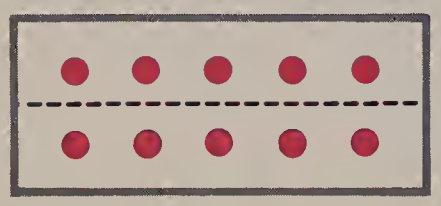
10. _____ ___ inches long

Do You Know?

1. Write about this array:

There are ____ boxes in this ____ by ____ array.

2. Think about this picture:



It shows that $\frac{1}{2}$ of ____ dots is ____ dots.

3. Draw rings to make sets of 4.

14; ____ sets of 4 and ____ left over

4. Color $\frac{3}{4}$ of this picture:

5. Two names for 3 tens and 19 ones are

____ + ____ and ____ + ____.

6. Two names for 56 are

____ + ____ and ____ + ____.

7. Show your work.

a. 47 + 6 = ?

b. 38 + 25 = ?

c. 82 − 7 = ?

d. 75 − 48 = ?

8. Mary wants to have a hat for each of her 16 paper dolls. She has made 9 hats. How many more hats does Mary need to make?

_____ ____ hats

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